

**AMANO Corporation**

ENVIRONMENTAL SYSTEMS

GENERAL CATALOG

- Dust collectors
- Vacuum cleaners
- Mist collectors
- Pneumatic conveying systems

www.amano.co.jp/English/environmental.html

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AMANO ENVIRONMENTAL SYSTEMS GENERAL CATALOG

Using engineering to the max to solve eco-issues and problems from Japan to the world!

Cleaner, faster, with more satisfaction.

Amano has been meeting customer production plant needs since 1951 when it first started working on environmental issues. We can provide continual support for ever-evolving production plant engineering since we continuously upgrade and refine our tech skills.

Our production engineering is known worldwide as the No. 1 catalyst for Japanese craftsmanship. We do our part by helping to lower labor accidents and reduce accidents!

Our work doesn't end there! We also make tech breakthroughs that precisely capture market and social needs such as by improving work efficiency, boosting production and removing toxic substances to continuously produced products that are just what the customer wants!

Amano is also currently enlarging its playing field to include not only Japan but the rest of the world as well.

High-level environmental tech fostered in Japan to all types of factories the world over.

Total engineering to environmental issues confronting plant management.

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AMANO ENVIRONMENTAL SYSTEMS LINEUP

AMANO Environmental Products Line

Compact Dust Collectors

General dry dust

Low pressure (static pressure up to 3 kPa)	
Manual shaking	Pulse jet
P5	P5
P6	

Mid-to-high pressure (static pressure 5kPa or more)	
Manual shaking	Pulse jet
P8	
P8	P9

For inflammable-combustible dust



For potentially explosive power or dust

With explosion pressure diffusion port



Food factories and Pharmaceutical factories



For laser markers



Welding work



*Calculate the small dust collector device internal pressure loss (filter pressure differential) utilizing about 1.47 kPa as a general guide.

Cyclone	P15
Centrifugal pre-dust box	P15

Vacuum Cleaners

General dry dust

Manual shaking	Pulse jet
P16	P16, P16
P17	
With explosion pressure diffusion port	For toners (organic powder)



For potentially explosive power or dust

With explosion pressure diffusion port

For toners (organic powder)

Large-scale Dust Collectors

Plate filter

Large air volume (up to 1000m³/min[3531cfm])	Medium air volume (up to 100m³/min[3531cfm])
P25	

Woven filter

P25

Woven filter

P25

High-temperature toxic gas eliminator system

P26

Molded cartridge filter

P25

Bag-in bag-out type

P26

Stainless steel specifications (for high pharmacologically-active powder)

P26

High pressure (static pressure up to 20 kPa)
Medium air volume (up to 100m³/min[3531cfm])

High pressure (static pressure up to 20 kPa)
Medium air volume (up to 100m³/min[3531cfm])

P25

※WRT-ST is equipment having a molded cartridge filter mounted in the WRT unit.
※The bag-in bag-out concept utilizes a dedicated filter to allow replacing filters & ejecting dust without touching the filter or dust.

Mist Collectors

Large air volume (50m³/min [1765cfm] or more)

Electrostatic precipitator	Self-Cleaning
P20	

Filter type

P22

Filter less

P21	P22	P21
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Pneumatic Conveying Systems

Large volume conveyor (up to 200 tons/h)

Blow pot type

High sealing feeder type

Low pressure(Blower)

Small volume conveyor (up to 2 tons/h)

Blower type

Ejector pump type

Blower type

Ejector pump type

Pressure feed

P33

P33

P33

Vacuum feed

P33

P34

VF-5N

Minisize fits securely into work bed.
Compact size and low-noise make it ideal for indoor work.

Compact body



Molded cartridge filter

Compact dust collector



■ Specifications

Model	VF-5N	VF-5NA
Power supply		
Output	kW HP	0.4
Airflow	m³/min cfm	0 3.5 6.0 0 123 211
Static pressure [kPa]	2.65	1.6 1.76 0.98
Area	m² ft²	1.6 17.2
Filter	Quantity	1
	Shape/Material	Molded cartridge/Polyester Spunbond
	Dust removal	Manual shaking Automatic shaking
Bucket capacity	L US.gallon	6.5 1.7
Recommended breaker [A]	15 (Single-phase 100V) / 5 (3-phase 200V)	
Power cord	m inch	• Single-phase 100V, 2.3 (3 core with plug) • 3-phase 200V, 2.7 (4 core without plug) • Single-phase 100V, 90 (3 core with plug) • 3-phase 200V, 106 (4 core without plug)
Suction port diameter	mm inch	Φ63.5 Φ2.5
Dimensions WxDxH	mm inch	380×500×623 15.0×19.7×24.6
Weight	kg lb	43 95 46 102
Paint color	JPMA (Japan Paint Manufacturing Association) J11-833	

VNA

Standard model designed to pursue high-quality finished basic performance.



Woven plate filter



■ Specifications

Model	VNA-15	VNA-30	VNA-45	VNA-60	VNA-120	
Power supply Frequency 50Hz or 60Hz at 3-phase 200V						
Output	kW HP	0.75 1	1.5 2	2.2 3	3.7 5	
Airflow	m³/min cfm	0 7.5 12 0 264 423	0 15 28 0 529 988	0 22 40 0 776 1412	0 30 55 0 1059 1942	
Static pressure [kPa]	2.45 1.77 0.69	2.55 2.10 1.20	2.55 2.20 1.00	2.90 2.35 0.80	3.20 2.94 0.70	
Area	m² ft²	4.5 48.4	9.0 96.8	13.5 145.2	18.0 193.6	
Filter	Quantity	1	2	3	4	
	Shape/Material	Woven plate/ canvas				
	Dust removal	Manual shaking	Manual shaking (Option: Automatic shaking)			
Bucket capacity	L US.gallon	18 4.7	25 6.6	36 9.5	50 13.2	
Recommended breaker [A]	10	15	20	30	60	
Power cord	m inch	3 (4-core, without plug) 118 (4-core, without plug)	Option(4-core)			
Suction port diameter	mm inch	Φ127 Φ5	Φ150 Φ6	Φ200 Φ8	Φ300 Φ12	
Dimensions WxDxH	mm inch	650×400×1205 25.6×15.8×47.5	650×650×1492 25.6×25.6×58.8	850×650×1542 33.5×25.6×60.8	1100×700×1652 43.4×27.6×65.1	
Weight	kg lb	92 203	145 320	180 397	270 596	
Paint color	JPMA (Japan Paint Manufacturing Association) J11-833				1125	

S-15

Superb dust collection capability and easy handling!

Built-in cyclone



Molded cartridge filter

Dust with a built-in cyclone

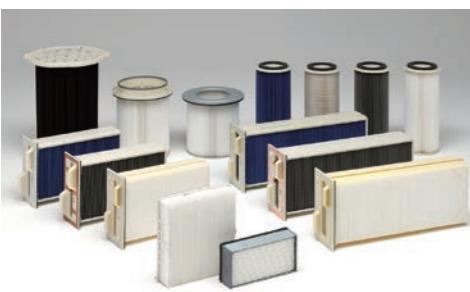


■ Specifications

Model	S-15	
Power supply 3-phase 200V 50/60Hz common use		
Output	kW HP	
50Hz Airflow	m³/min cfm	0.75 1
60Hz Airflow	m³/min cfm	0 6.0 9.0 0 211 317
Static pressure [kPa]	2.0 0.4	1.1 0.4
Filter	Area ft²	4.1 44.1
	Quantity	1
	Shape/Material	Molded cartridge/Polyester Spunbond
	Dust removal	Manual shaking
Bucket capacity	L US.gallon	20 5.2
Recommended breaker [A]	10	
Power cord	m inch	3 (4-core, without plug) 118 (4-core, without plug)
Suction port diameter	mm inch	Φ125 Φ5
Dimensions WxDxH	mm inch	649×649×1462 25.6×25.6×57.6
Weight	kg lb	70 155
Paint color	JPMA (Japan Paint Manufacturing Association) (Body F35-85A, Top/Bottom YN40)	

Molded cartridge filter has internal jet amplifier to boost the unique Amano in-house jet effect.

Hosoe Factory manufactures products under strict quantity supervision.



Hosoe Facility

8123 Kiga, Hosoe-cho, kita-ku, Hamamatsu, Shizuoka-ken

PiF 15/30/45/60

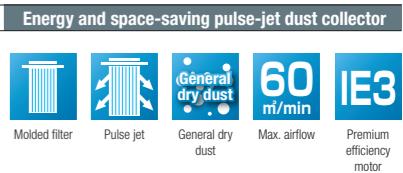
Auto energy-saving operation via inverter & premium efficiency motor.

Pulse jet type
(By differential pressure detection)

Automatic airflow control



Molded cartridge filter (length:500mm)



- Energy Saving
- Premium efficiency motor (IE3)
- Inverter control improves filter life
- Easy filter replacement
- Data logging function

■ Specifications

Model	PiF-15	PiF-30	PiF-45	PiF-60
Power supply 3-phase 200V 50/60Hz common use				
Motor	kW HP	0.6 0.8	1.35 1.8	2.0 2.6
Inverter				4.1
Efficiency	IE2	IE3		
Airflow	m³/min cfm	0 10 18 0 353 635	0 20 30 0 706 1059	0 30 45 0 1059 1589
Static pressure [kPa]	2.65 1.80 0.50	2.65 2.06 1.08	2.65 1.96 0.64	3.00 2.26 0.98
Filter	Quantity	2	4	6
	Shape	Molded cartridge (length:500mm)		
	Dust removal	Automatic pulse jet (By differential pressure detection)		
	Material	Polyester Spunbond		
	Area	m² ft²	6.0 64.5	12.0 129.1
	Compressed air consumption [L/min]	30	36	45
	Diaphragm valve [pcs.]	2	2	3
	Bucket capacity	L U.S.gallon	22.5 5.9	14x2 3.6x2
	Recommended breaker [A]	10	15	20
Power cord	m inch	3 (4-core, without plug) 118 (4-core, without plug)		
Suction port diameter	mm inch	Φ127 Φ5	Φ150 Φ6	Φ200 Φ10
Dimensions WxDxH	mm inch	520×650×1200 20.5×25.6×47.2	520×650×1617 20.5×25.6×63.7	680×650×1645 26.8×25.6×64.8
Weight	kg lb	127 280	163 360	208 459
Paint color	JPMA (Japan Paint Manufacturing Association) F35-85A			

PiF 75/120/150

Pulse jet type dust collector
Handles air flow of 60m³/min or more.



Molded cartridge filter (length:750mm)

- Energy Saving
- Premium efficiency motor(IE3)
- Inverter control improves filter life
- Easy filter replacement
- Oneside filter inlet

■ Specifications

Model	PiF-75		PiF-120		PiF-150		with inverter				
	Power supply		3-phase 200V 50/60Hz common use	Output	kW	5.5	7.5	11.0			
Motor								Inverter	7.3	10.0	15.0
Efficiency					IE3						
Airflow	m ³ /min	0	60	90	0	80	110	0	120	180	
	cfm	0	2118	3178	0	2825	3864	0	4237	6356	
Static pressure [kPa]		3.10	2.50	0.70	3.20	2.50	0.60	3.10	2.50	0.70	
Area	m ²	38.4			57.6			86.4			
Filter	ft ²	413.3			620			930			
Shape / Material		Molded cartridge (length:750mm) / Polyester spunbond									
Dust removal		Automatic pulse jet (by differential pressure detection)									
Compressed air consumption [L/min]		75			86			100			
Diaphragm valve [pcs.]		4			6			6			
Suction port diameter	mm	Ø300			Ø300			Ø380			
	inch	Ø12			Ø12			Ø15			
Recommended breaker [A]		50			60			75			
Power cord		Option(4-core)									
BO type	Dimensions mm	950×950×1737		1398×950×1731		1484×1000×2439					
	W×D×H inch	37.4×37.4×68.3		55.0×37.4×68.3		58.4×39.3×96.0					
	Weight kg	360		460		710					
	lb	794		1015		1565					
Bucket BS type	Dimensions mm	950×950×1927		1398×950×2062		1484×1000×2770					
	W×D×H inch	37.4×37.4×75.8		55.0×37.4×81.1		58.4×39.3×109.0					
	Weight kg	400		550		780					
	lb	882		1213		1719					
Bucket BL type	Bucket capacity U.S.gallon	5.9×2		5.9×3		5.9×3					
	Dimensions mm	960×960×2419		1413×965×2382		1497×1013×3154					
	W×D×H inch	37.8×37.8×95.2		55.6×38.0×93.7		58.9×39.9×124.1					
	Weight kg	460		570		810					
	lb	1014		1257		1785					
Hopper F type	Bucket capacity U.S.gallon	100		130		130					
	Dimensions mm	962×962×3538		1410×962×3832		1496×1012×4710					
	W×D×H inch	37.9×37.9×139.2		55.5×37.9×150.8		58.9×39.8×185.4					
	Weight kg	640		820		1090					
	lb	1411		1808		2403					
	Hopper capacity U.S.gallon	314		610		778					
	Paint color	85.2		161.1		205.5					
		JPMA (Japan Paint Manufacturing Association) F35-85A									

**PiF** 200/300

Pulse jet type dust collector
Handles air flow of 160m³/min or more.



Molded cartridge filter (length:750mm)

- Energy Saving
- Premium efficiency motor(IE3)
- Inverter control improves filter life
- Easy filter replacement
- Oneside filter inlet

■ Specifications

Model	PiF-200		PiF-300		with inverter						
	Power supply		3-phase 200V 50/60Hz common use	Output							
Motor											
	Output	15.0		22.0							
	Inverter	20.0		30.0							
	Efficiency			IE3							
Airflow	m ³ /min	0	160	190	0						
	cfm	0	5650	6709	0						
Static pressure [kPa]		4.00	2.40	0.40	4.00						
Area	m ²	115.2		172.8							
Filter	ft ²	1240		1860							
Shape / Material		24		36							
Dust removal		Molded cartridge (length:750mm) / Polyester spunbond									
Compressed air consumption [L/min]		100		100							
Diaphragm valve [pcs.]		8		12							
Suction port diameter	mm	Ø450		Ø580							
	inch	Ø17.8		Ø22.9							
Recommended breaker [A]		125		175							
Power cord		Option (4-core)									
Bucket BL type	Dimensions mm	2132×1130×3667		3028×1230×3922							
	W×D×H inch	83.9×44.5×144.4		119.2×48.4×154.4							
	Weight kg	1270 _{±1}		1840 _{±2}							
	lb	2800 _{±1}		4057 _{±2}							
	Bucket capacity L	200 (100×2)		260 (130×2)							
	U.S.gallon	52.8 (26.4×2)		68.7 (34.3×2)							
	Paint color	JPMA (Japan Paint Manufacturing Association) F35-85A									



■ Specifications

VF-2S

24 hour continuous operation.

- Compact
- High static pressure 20 kPa
- Energy Saving



Molded cartridge filter



Strong suction power

Powerful vacuum about 7 times greater than our small-size VF-5N dust collector.



Small high-pressure dust collector

**Mi/Mi-H**

Medium-pressure & medium air flow model.

Simultaneously suctions in suspended particulates, high-speed dispersed powder, and heavy cutting chip.



Molded cartridge filter



■ Specifications

Model	Mi-204		Mi-306		Mi-508		Mi-202		Mi-304		Mi-506		Mi-302H		Mi-504H	
Pressure at operating point	4.0kPa type	Pressure at operating point	6.0kPa type	Pressure at operating point	10.0kPa type	Pressure at operating point	4.0kPa type	Pressure at operating point	6.0kPa type	Pressure at operating point	10.0kPa type	Pressure at operating point</				

FCN

Welding work dust collector with fire control function.



Molded cartridge filter



Dust collector for welding work

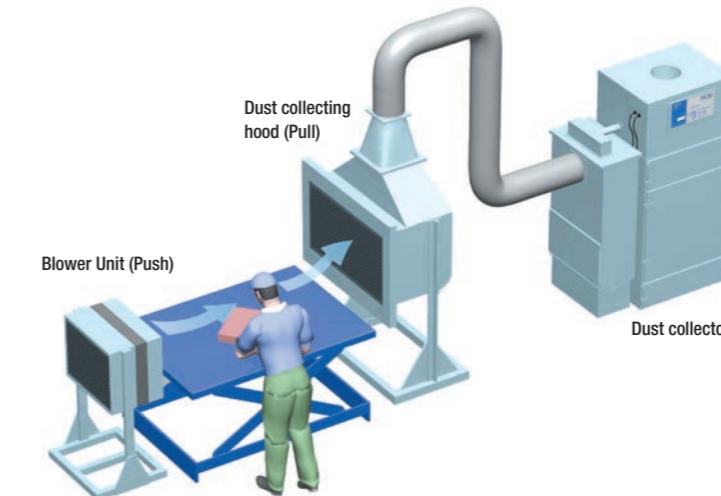
- Smoke sensor
- Spark sensor
- Pre-dust box

Specifications

Model	FCN-30	FCN-45	FCN-60						
Power supply									
Output	kW HP	1.5 2	2.2 3	3.7 5					
Airflow	m³/min cfm	0 0	12 423	18 635	0 706	20 1059	30 0	30 1059	45 1589
Static pressure [kPa]		2.55 2.55	1.72 0.75	0.75 2.22	2.22 1.30	2.84 0	2.20 30	1.00 45	
Filter	Area ft²	27.0 290.5	40.5 435.7	60.8 654.2					
Quantity	4	6	9						
Shape	Molded cartridge (length:750mm, 132-ridge φ200 cylinder type)								
Material	Polyester Spunbond								
Dust removal	Automatic pulse jet (At fixed interval)								
Diaphragm valve [pcs.]	2	3	3						
Compressed air consumption [L/min]	20	30	40						
Bucket capacity	L U.S.gallon	16 4.2	30 7.9	44 11.6					
Bottom part of separation box	Bottom part of dust collector	25	18x2	20x2					
Bottom part of separation box	Bottom part of dust collector	4.2	4.7x2	5.2x2					
Bottom part of separation box	Bottom part of dust collector	6.6							
Recommended breakers [A]		15	20	30					
Power cord	m inch	3 (4-core, without plug) 118 (4-core, without plug)							
Suction port diameter	mm inch	φ150 φ6	φ200 φ8	φ250 φ10					
Dimensions WxDxH	mm inch	998x651x1817 39.3x25.7x71.6	1268x660x1827 50.0x26.0x72.0	1358x840x1897 53.5x33.1x74.7					
Weight	kg lb	245 541	305 673	430 949					
Paint color		JPMA (Japan Paint Manufacturing Association) J11-833							

HF

Push pull dust collecting system.

**Specifications**

Model	HF-45	HF-60	HF-75	HF-150
Power supply	3-phase 200V 50/60Hz common use			
Output	kW HP	0.15 0.2	0.2 0.26	0.2 0.26
Effective outlet area	m² ft²	0.22 2.3	0.33 3.5	0.60 6.4
Size of supply opening	mm inch	474x474 18.7x18.7	574x574 22.6x22.6	574x1044 22.6x41.2
Range of injection velocity [m/s] [50/60Hz]	0.5~2.1/2.5	0.5~2.3/2.8	0.5~1.6/1.9	0.5~1.9/2.2
Range of injection airflow [m³/min] [50/60Hz]	6.7~ 28.3/33.7	9.9~ 45.5/55.4	18.0~ 57.5/68.3	36.1~ 137.3/159.0
Range of injection airflow [cfm] [50/60Hz]	236~ 999/1190	349~ 1606/1956	635~ 2030/2411	1274~ 4848/5615
Weight	kg lb	61 135	76 168	126 278
Paint color		JPMA (Japan Paint Manufacturing Association) J11-833		

FD-10

Dust collector for welding work.



Molded cartridge filter

Specifications

Model	FD-10			
Power supply	Frequency 50Hz or 60Hz at 3-phase 200V			
Output	kW HP	0.75 1		
Max. airflow	m³/min cfm	9.0 317		
Max. static pressure [kPa]		2.5		
Filter	Area ft²	20.0 215.2		
Quantity	2			
Shape/Material	Molded cartridge / nanofiber			
Dust removal	Manual shaking			
Suction port diameter	mm inch	φ160 φ6.3		
Recommended breakers [A]		10		
Power cord	m inch	5 (4-core, without plug) 196 (4-core, without plug)		
Dimensions	mm inch	710x868x985 28.0x34.2x38.8		
Weight	kg lb	152 336		
Paint color		JPMA (Japan Paint Manufacturing Association) J11-833		

VF-5HG

The "Ace" among laser marking dust collectors.

Long filter life by fixed regulation of auto air flow (capacity).



Laser marker dedicated dust collector (with deodorizing function)

**Specifications**

Model	VF-5HG	
Power supply	3-phase 200V 50/60Hz common use	
Output	kW HP	1.1 1.4
Blower motor		Brushless blower motor
Max. airflow	m³/min cfm	3.0±0.3 105±10
Max. static pressure [kPa]		2.8±0.3 98±10
Filter	Area ft²	20.3±0.3 7±2.3
Internal surface filtration		Internal
Internal volume	L U.S.gallon	2.3 24.7
Quantity	1	Approximately 15
Material	electret nonwoven fabric	Approximately 3.9
Deodorant		Activated carbon (20L(8.4kg))
Recommended breakers [A]		10 15
Power cord	m inch	2.8 (without plug) 110 (without plug)
Suction port diameter	mm inch	Option (uses φ38, φ50, φ65) Option (uses φ1.5, φ2.0, φ2.6)
Dimensions	mm inch	440x488x798 17.4x19.3x31.5
Weight	kg lb	78 172
External plate material		Iron structure : finish coating JPMA (Japan Paint Manufacturing Association) F35-85A Stainless steel : hairline finish
Operation control		Auto constant air flow control (adjustable range 0.4 to 2.2 m³/min)

VF-5HN

Low-cost laser marker dust collector.

With deodorizing function



Laser marker dedicated dust collector (with deodorizing function)

Electret filter Fumes 3.6 m/min

Electret filter Fumes Max. airflow

Specifications

Model		VF-5HN	
Power supply		3-phase 200V	single-phase 100V
		Frequency 50Hz or 60Hz	
Output	kW	0.4	
	HP	0.5	
Max. airflow	m³/min	3.6±0.2	
	cfm	127±10	
Max. static pressure [kPa]		2.65	
Filtration method		Internal surface filtration	
Filter Area	m² ft²	2.3 24.7	
Internal volume	L U.S.gallon	15 3.9	
Quantity		1	
Material	Electret nonwoven fabric		
Deodorant	Activated carbon [20L(10kg)]		
Recommended breakers [A]	5	15	
Power cord	m inch	2.3 (with plug) 90 (with plug)	
Suction port diameter	mm inch	Option (uses Ø65, Ø75, Ø100) Option (uses Ø2.6, Ø3.0, Ø4.0)	
Dimensions WxDxH	mm inch	400×400×779 15.8×15.8×30.7	
Weight	kg lb	53 117	
Paint color	JPMA (Japan Paint Manufacturing Association) F35-85A		

PiH

Zeolite precoating function delivers stable collection of fumes that tend to adhere to surfaces of filter.

With deodorizing function



Laser marking dust collector

Molded filter Pulse jet Fumes 26 m/min IE3

Molded filter Pulse jet Fumes Max. airflow Premium efficiency motor

Specifications

Model		PIH-30	PIH-60
Power supply		Frequency 50Hz or 60Hz at 3-phase 200V	
Output	kW HP	1.5 2	3.7 5
Airflow	m³/min cfm	0 10 13 0 353 459	0 20 26 0 706 918
Static pressure [kPa]	2.74	1.07 0.49 9.0	2.84 1.18 0.49 18.0
Area	m² ft²	96.8	193.6
Filter Quantity	4		8
Shape/Material	Molded cartridge / Polyester Spunbond		
Dust removal	Automatic pulse jet (At fixed interval)		
Compressed air consumption	Pulse: 20L /min	Pulse: 40L /min	
Pulse: Dust removal	Flash: 150L /min	Flash: 300L /min	
Flushing: ZEOPOWER	Entrainment		
Filter aid	kg lb	6.0 (ZEOPOWER) 13.3 (ZEOPOWER)	12.0 (ZEOPOWER) 26.5 (ZEOPOWER)
Deodorant [12kg/one unit]	Approx. 36kg (Activated carbon)		
Bucket capacity	L U.S.gallon	25 6.6	25x2 6.6x2
Recommended breakers [A]	15		30
Power cord	m inch	3 (4-core, without plug) 118 (4-core, without plug)	
Suction port diameter	mm inch	Ø125 Ø5	Ø200 Ø8
Dimensions WxDxH	mm inch	650×650×2043 25.6×25.6×80.5	1100×700×2198 43.4×27.6×86.6
Weight	kg lb	195 430	360 794
Paint color	JPMA (Japan Paint Manufacturing Association) J11-833		

VF-5H

Zeolite precoating function delivers stable collection of fumes that tend to adhere to surfaces of filter.

With deodorizing function



Laser marker dedicated dust collector (with deodorizing function)

Molded filter Automatic shaking Fumes 1.6 m/min

Molded filter Fumes Max. airflow

Specifications

Model		VF-5H	
Power supply		Frequency 50Hz or 60Hz at single-phase 100V	
Output	kW	0.4	
	HP	0.5	
Max. airflow	m³/min	1.6	
	cfm	56	
Max. static pressure [kPa]		2.5	
Area	m² ft²	1.6 17.2	
Filter Quantity		1	
Shape/Material	Molded cartridge / Polyester Spunbond		
Dust removal	Automatic shaking		
Deodorant	Activated carbon (10kg)		
Filter aid [ZEOPOWER]	kg lb	1.6 3.6	
Bucket capacity	L U.S.gallon	3 0.8	
Recommended breakers [A]	15		
Power cord [m]	m inch	2.3 (2-core, with plug) 90 (2-core, with plug)	
Suction port diameter	mm inch	Ø50 Ø2	
Dimensions WxDxH	mm inch	380×500×846 15.0×19.7×33.4	
Weight	kg lb	66.8 148	
Paint color	JPMA (Japan Paint Manufacturing Association) J11-833		

SS-N

Scrubber for combustible dust. Wet type dust collector.

Scrubber



Wet type dust collector (Scrubber)

Scrubber Inflammable dust 70 m/min IE3

Scrubber Inflammable dust Max. airflow Premium efficiency motor

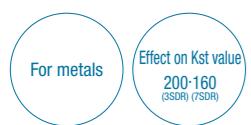
Specifications

Model		SS-30N	SS-40N	SS-60N	SS-75N
Power supply		3-phase 200V 50/60Hz common use			
Output	kW HP	3.7 5	5.5 7.3	7.5 10	
Airflow	m³/min cfm	30 1059	40 1412	50 1765	70 2472
Static pressure [kPa]				3.0	
Filler Type	Rashig ring (porcelain)			Ø10×10×thickness 2mm	
Size				650	
Specific surface area	m² ft²	6994			
Filling capacity	L U.S.gallon	225 59.5	300 79.3	360 95.2	495 130.8
Suction / Exhaust port	mm inch	Ø200/Ø200 Ø8/Ø8	Ø250/Ø250 Ø10/Ø10	Ø300/Ø300 Ø12/Ø12	Ø350/Ø350 Ø14/Ø14
Circulation tank	L U.S.gallon	330 87.1	420 111.0	510 134.7	670 177.0
Demister	mm inch	1pc. (515×780) 1pc. (20.3×30.8)	2pcs. (370×780) 2pcs. (14.7×30.8)	2pcs. (515×780) 2pcs. (20.3×30.8)	2pcs. (615×780) 2pcs. (24.3×30.8)
Nozzle	4 pcs./10A			6 pcs./10A	8 pcs./10A
Circulating water quantity [L/min]		30	50	75	90
pump Output	kW HP	0.18 0.2		0.25 0.3	
Water supply	Water line 0.15MPa or higher/ball-tap (with manual ball valve 15A)			300mg/m³ / 40°C or less	
Maximum inlet duct concentration/ maximum suction temperature				300mg/m³ / 40°C or less	
Recommended Breather	Standard equipment				
Power cord	Option (4-core)				
Dimensions WxDxH	mm inch	1445×1000×2480 56.9×39.4×97.7	1745×1000×2480 68.8×39.4×97.7	1995×1000×2480 78.6×39.4×97.7	2520×1000×2580 99.3×39.4×101.6
Weight [Not including water]	kg lb	610	760	880	1180
		1345	1676	1941	2602



V-SDR

For use with explosive or inflammable powder such as aluminum dust.
Fullfilling safety measures.



Molded cartridge filter (Anti-electrostatic filter)

Dust explosion pressure diffusion type industrial vacuum cleaner



Specifications

Model	V-3SDR			V-7SDR		
Power supply	Frequency 50Hz or 60Hz at 3-phase 200V					
Output	kW	2.2		5.5		
	HP		3		7.3	
Airflow	m³/min	0	2.4	4.8	0	2.7
	cfm	0	84	169	0	95
Static pressure [kPa]		12.4	10.9	7.9	22.6	19.7
	m²		2.0		2.6	
	ft²		21.5		27.9	
Filter	Quantity			1		
	Shape	Molded cartridge (Anti-electrostatic filter)				
	Dust removal	Manual shaking				
Bucket capacity	L	27		60		
	U.S.gallon	7.1		15.8		
Recommended breakers [A]		20		50		
Power cord	m	15 (4-core, without plug)				
	inch	590 (4-core, without plug)				
Suction port diameter	mm	Ø38.1				
	inch	Ø1.5				
Dimensions	mm	496×1089×1052		621×1397×1194		
	inch	19.6×42.9×41.5		24.5×55.0×47.1		
Weight	kg	141		250		
	lb	311		552		
Paint color	JPMA (Japan Paint Manufacturing Association) S11-344					

1. For countries with high efficiency motor regulation, the high efficiency Totally Enclosed Fan-cooled (non-explosion-proof) motor that meets the regulations of each country is installed. The model name will be DN or D.
2. In the case of power supply specification is not 200V50Hz/60Hz or 220V60Hz, the Totally Enclosed Fan-cooled (non-explosion-proof) motor is installed. The model name will be DN or D.

EM-8eII

Powerful collection of highly concentrated mist up to 100mg/m³
Compact electric collection type mist collectors.
Operational for both oil and water soluble mist

Compact



Electrostatic precipitator mist collector



Specifications

Model	EM-8eII	
Power supply	Single phase 200V 50/60Hz common use	
Output	kW	0.12
	HP	0.16
Usage Point	50Hz	7.5 (7.5)
Airflow	m³/min	7.5 (7.5)
	60Hz	264 (264)
	cfm	264 (264)
Usage point static pressure [Pa]	50Hz	50 (900)
	60Hz	50 (900)
Prefilter	Stainless steel wire demister	
Electric collection part	Electric charge method	(-) negative charge, 2-stage charging system
	Charging electrode type	Needle type (nickel alloy)
	Electrode charging voltage HV [kV]	-8
	Collecting electrode voltage LV [kV]	-6
Objects for collection	Oil mist, Water-soluble oil mist and Oil soluble & water soluble mist with ignition point of 80°C or more	
Collecting efficiency [%]	Water-soluble mist with electric conductivity of 300mS/m or less	
Maximum inlet concentration [mg/m³]	99 (Weight ratio per filter paper) Depending on suction air volume	
Recommended breakers [A]	100	
Power cord	m	5
	inch	3.5 (3-core, without plug)
Drainage port	1-inch nipple (taper male screw for R1 pipe)	
Dimensions WxDxH	mm	430×535×400
	inch	16.9×21.0×15.7
Weight	kg	29
	lb	64
Paint color	JPMA(Japan Paint Manufacturing Association) F35-85A	

VF-2LD

For explosive & inflammable dust other than metal such as toner.
Fullfilling safety measures.



Molded cartridge filter (dedicated toner Fine-fil static charge)

Dust explosion pressure diffusion type industrial vacuum cleaner



Explosion test Our inhouse explosion test photos.



Specifications

VF-2LD		
Power supply	3-phase 200V	single-phase 100V
	Frequency 50Hz or 60Hz	
Output	kW	1.0
	HP	1.3
Airflow	m³/min	2.7±0.3
	cfm	95±10
Static pressure [kPa]		20.0±3.0
	m²	2.2
	ft²	23.6
Filter	Quantity	1
	Shape	Molded cartridge (dedicated toner fine-fil static charge)
	Dust removal	Manual shaking
Bucket capacity	L	13
	U.S.gallon	3.4
Recommended breakers [A]	10	15
Power cord	m	10.3 (4-core, without plug)
	inch	405 (4-core, without plug)
Suction port diameter	mm	Ø38
	inch	Ø1.5
Dimensions	mm	430×895×1500
	inch	17.0×35.3×59.1
Weight	kg	107
	lb	236
Paint color	JPMA (Japan Paint Manufacturing Association) S11-344	

※Performance values might change from those shown on custom order specifications.

EM-eII

Powerful collection of highly concentrated mist up to 200mg/m³
Bestseller among electric collection Mist Collectors
Operational for both oil and water soluble mist



Electrostatic precipitator mist collector

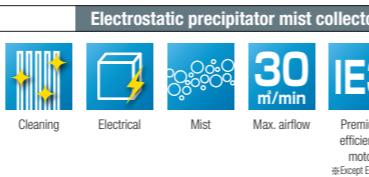


Specifications

Model	EM-15eII	EM-30eII
Power supply	3-phase 200V 50/60Hz common use	
Output	kW	0.75
	HP	1
Usage Point	50Hz	15 (19)
Airflow	m³/min	30 (34)
	60Hz	15 (22)
	cfm	1059 (1200)
Usage point static pressure [Pa]	50Hz	529 (670)
	60Hz	529 (776)
	cfm	1059 (1412)
Prefilter	Stainless steel wire demister	
Electric collection part	Electric charge method	(-) negative charge, 2-stage charging system
	Charging electrode type	Needle type (titanium)
	Electrode charging voltage HV [kV]	-10
	Collecting electrode voltage LV [kV]	-6
Objects for collection	Oil mist, Water-soluble oil mist and Oil soluble & water soluble mist with ignition point of 80°C or more	
Collecting efficiency [%]	Water-soluble mist with electric conductivity of 300mS/m or less	
Maximum mist concentration [mg/m³]	99 (Weight ratio per filter paper) Depending on suction air volume	
Recommended breakers [A]	200	
Power cord	m	10
	inch	3.5 (4-core, without plug)
Drainage port	1-inch nipple (taper male screw for R1 pipe)	
Dimensions WxDxH	mm	478×993×620
	inch	18.9×39.1×24.5
Weight	kg	72
	lb	120
Paint color	JPMA(Japan Paint Manufacturing Association) F35-85A	

EM-SC

Clean electrodes without washing by water or detergent.
Equipped with auto self-cleaning function.
Top of the line in electric collection -mist collectors.



Self-cleaning



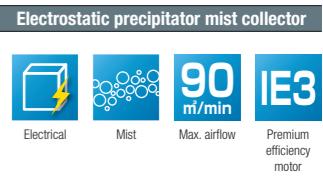
Specifications

Model	EM-8SC	EM-15SC	EM-30SC	
Power supply	3-phase 200V 50/60Hz common use			
Output	kW HP	0.4 0.5	0.75 1	1.5 2
Max. airflow	m ³ /min cfm	8.0 282	15.0 529	30.0 1059
Max. static pressure [Pa]		500		
Pre-processing		Metal eliminator		
Electric collection part	Electric charge method Charging electrode type Electrode charging voltage HV [kV] Collecting electrode voltage LV [kV] Cleaning method	(+) positive charge, 2-stage charging system Needle type (titanium) 10 8 Cleaning by rotating electrode & stationary scraper		
Objects for collection	Oil mist, Water-soluble oil mist and Oil soluble & water soluble mist with ignition point of 80°C or more Water-soluble mist with electric conductivity of 300mS/m or less			
Collecting efficiency [%]		99 (weight ratio per filter paper)		
Maximum inlet concentration [mg/m ³]		200		
Recommended breakers [A]	5	10	15	
Power cord	m inch	3.5 (4-core, without plug) 137 (4-core, without plug)		
Drainage port		1-inch nipple (paper male screw for R1 pipe)		
Dimensions WxDxH	mm inch	707x476x1081 27.9x18.8x42.6	872x476x1086 34.3x18.8x42.8	1310x476x1209 51.6x18.8x47.6
Weight	kg lb	84 186	107 236	140 309
Paint color	JPMA(Japan Paint Manufacturing Association) F35-85A			

*Suction inlet packing comes supplied with optional suction inlet.

EM-eH

Turbofan gives extra power for air flow & static pressure.
Ideal for die casting machines.



Max. air flow
90m³/min



Specifications

Model	EM-60eH	EM-90eH
Power supply	3-phase 200V 50/60Hz common use	
Output	kW HP	3.7 5.0
Airflow	m ³ /min cfm	0 40 60 Operating point 0 2118 60 Operating point 0 2118 3178 Operating point
Static pressure [kPa]		2.23 1.50 0.50 2.76 1.70 0.27
Pre-processing	Eliminator Demister	4 pcs. 2 pcs. 4 pcs. 6 pcs. 4 pcs. 6 pcs.
Electric collection part	Charging electrode Collecting electrode	4 pcs. 4 pcs. 4 pcs. 6 pcs.
Safety measure	Fire protection damper	One unit of the FVD type damper (with volume adjuster, temperature fuse, limit switch) is provided as a standard accessory.
Collecting efficiency [%]		97.5 (weight ratio per filter paper) airflow at operating point
Maximum inlet concentration [mg/m ³]		50
Recommended breakers		Standard equipment
Power cord		Option (4-core)
Drainage port		1-inch single-ended male nipple (with valve and elbow)
Dimensions WxDxH	mm inch	905x958x2221 35.7x37.8x87.5 905x1303x2266 35.7x51.3x89.2
Weight	kg lb	375 827 550 1213
Paint color	JPMA (Japan Paint Manufacturing Association) J11-833	

EM-SC II Lt

Low-priced model for EM-SC
Equipped with auto self-cleaning function only for collecting electrode



Self-Cleaning



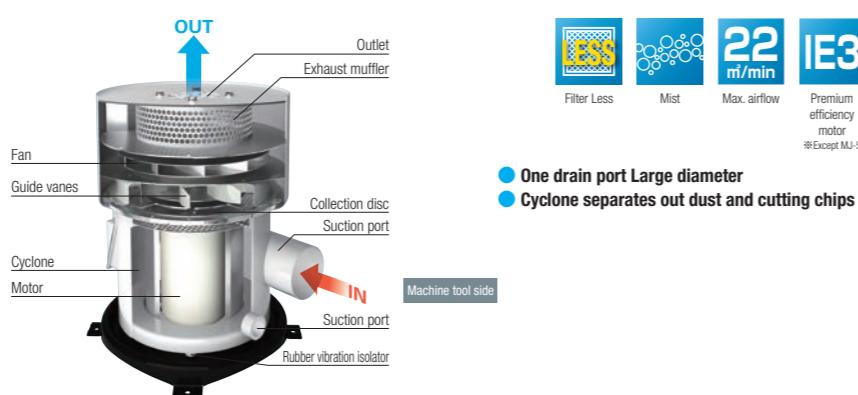
Specifications

Model	EM-15SC II Lt	EM-30SC II Lt	
Power supply	3-phase 200V 50/60Hz common use		
Fan motor output	kW HP	0.75 1	1.5 2
Electrode cleaning motor output	W HP	7.0 0.009	
Usage point airflow [m ³ /min] ※Figure in () is min / max value	50Hz 60Hz	15 (Min 12.5 / Max 19) 15 (Min 12.5 / Max 22)	30 (Min 25 / Max 34) 30 (Min 25 / Max 34)
Usage point static pressure [Pa] ※Figure in () is max value	50Hz 60Hz	270 (550) 540 (750)	190 (450) 420 (600)
Pre-processing		Metal eliminator	
Electric collection part	Electric charge method Charging electrode type Electrode charging voltage HV [kV] Collecting electrode voltage LV [kV]	(-) negative charge, 2-stage charging system Needle type 10 (7line) 8 (13line)	
Cleaning method	Cleaning by rotating electrode & stationary scraper		
Objects for collection	Oil mist, Water-soluble oil mist and Oil soluble & water soluble mist with ignition point of 80°C or more Water-soluble mist with electric conductivity of 300mS/m or less		
Collecting efficiency [%]		99 (weight ratio per filter paper)	
Maximum inlet concentration [mg/m ³]		200	
Recommended breakers [A]	10	10	15
Power cord	m inch	3.5 (4-core, without plug) 137 (4-core, without plug)	
Drainage port		1-inch 90° elbow / Hose nipple	
Dimensions WxDxH	mm inch	500x1234x620 19.7x48.6x24.5	835x1334x620 32.9x52.6x24.5
Weight	kg lb	83 183	128 283
Paint color	JPMA(Japan Paint Manufacturing Association) F35-85A		

*Performance values might change from those shown on custom order specifications.

MJ

No filter replacement needed.
Cyclone and trapping disk provide long term suction intake and trapping performance.

**Specifications**

Model	MJ-5	MJ-10	MJ-15	MJ-25
Power supply 3-phase 200V 50/60Hz common use				
Output kW	0.4	0.75	1.5	2.2
HP	0.5	1	2	3
Max. airflow 50Hz/60Hz m³/min	3.7/4.5	7.0/8.5	13.0/16.0	18.0/22.0
cfm	130/158	247/300	459/565	635/776
Max. static pressure [kPa] 50Hz/60Hz	1.0/1.5			
Collecting method	Cyclone + rotary collision method			
Collecting efficiency [%]	99.9 (2.0μm particle water soluble mist)			
Objects for collection	Water soluble mist/Oil mist (after-filter is mounted in case of oil mist suction)			
Maximum inlet concentration [mg/m³]	20			
Recommended breakers [A]	5	10	15	20
Power cord	Option (4-core)			
Suction port diameter mm	φ98	φ123	φ148	φ198
inch	φ3.9	φ4.9	φ5.9	φ7.8
Drainage port	1-inch socket			
Dimensions mm	429	476	576	632
inch	17.9	19.6	22.7	24.9
Height	453	507	589	662
Max width	16.9	18.8	22.7	24.9
Weight kg	38	42	63	73
lb	84	93	139	161
Vibration-suppression function	Rubber vibration isolator (oil-resistant)			
Paint color	JPMA (Japan Paint Manufacturing Association) main unit F35-85A, bottom YN40			

MZ

Energy Saving model
Operation at same air flow but with a motor that is lower notch.

**Easy toolless maintenance!**

Maintenance is easy even in high positions such as upper parts of machine tools.



Unclamp at 2 positions and open the cover.
Remove the rectifier cone unit.
Remove the primary filter from the rectifier cone unit.
Take out the secondary filter from the fan unit and replace with a new secondary filter.

Specifications

Model	MZ-10	MZ-15	MZ-30
Power supply 3-phase 200V 50/60Hz common use			
Output kW	0.4	0.75	1.5
HP	0.5	1	2
Max. airflow m³/min	8.3	10.5	17
50Hz	8.3	10.5	17
60Hz	10	12.5	20
cfm	293	370	600
50Hz	353	442	709
60Hz	1.3	1.3	1.75
Max. static pressure [kPa]	0.9	0.9	1.2
50Hz	0.9	0.9	1.2
60Hz	1.3	1.3	1.75
Primary filter	Polyester (1 pc. use)		
Secondary filter	Polyester (1 pc. use)		
Collecting efficiency [%]	99.7 and over (2μm and over water soluble mist)		
Objects for collection	Water soluble mist (intake of oily mist after mounting an after-filter available as an option)		
Maximum inlet concentration [mg/m³]	20		
Recommended breakers [A]	5	10	15
Power cord	Option (4-core)		
Suction port diameter mm	φ123	φ148	φ198
inch	φ4.9	φ5.9	φ7.8
Drainage port	φ16mm (2 locations) non-thread screws (use for insertion of hose)		
Dimensions WxDxH mm	306x556x450	356x583x460	407x672x575
inch	12.1x21.9x17.8	14.1x23.0x18.2	16.1x26.5x22.7
Weight kg	27	35	60
lb	60	78	133
Paint color	JPMA (Japan Paint Manufacturing Association) main unit F35-85A, exhaust box U77-60L		

MS

Proprietary swirl flow separator.
Ideal for collection from multiple machine tools.



Large air flow filter type mist collector

**Specifications**

Model	MS-100	MS-150	MS-200	MS-250	MS-350	MS-400
Applicable capacity m³/min	100	150	200	250	350	400
cfm	3531	5297	7062	8828	12360	14125
Primary filter Dimension WxH mm	500x666		800x1000			
inch	19.7x26.3		31.5x39.4			
Quantity	16	20	24	32	40	40
Material	Sponge + particular fiber					
Dimension WxHxD mm	610x610x290	610x760x290	610x610x290	610x760x290		
inch	24.1x24.1x11.5	24.1x30.0x11.5	24.1x24.1x11.5	24.1x30.0x11.5		
Secondary filter Quantity	4	6	9	12		
Material	Glass wool					
Objects for collection	Water soluble mist/oil mist					
Maximum inlet concentration [mg/m³]	20					
Suction port diameter mm	φ380	φ470	φ550	φ610	φ720	φ770
inch	15	18.6	21.7	24.1	28.4	30.4
Dimensions mm	3250	3635	4590	4730	5300	5390
inch	1500	1870	1700	2050	2560	2600
W	1590	1590	2250	2250	2700	
H	59.1	73.7	67.0	80.8	100.8	102.4
D	62.6	62.6	88.6	88.6	106.3	
Dimensions inch	128.0	143.2	180.8	186.3	208.7	212.3
Weight kg	1200	1600	2200	2400	2900	3500
lb	2646	3528	4851	5292	6395	7718
Drainage port 1-1/2 inch socket [set]	4					
2 inch socket [set]					1	
Paint color	JPMA (Japan Paint Manufacturing Association) J11-833					

MC-45

Medium airflow mist collector.



Filter type medium airflow mist collector



Filter

Specifications

Model	MC-45
Power supply	Frequency 50Hz or 60Hz at 3-phase 200V
kW	2.2
HP	3
Airflow m³/min	0
cfm	706
Static pressure [kPa]	2.75
Quantity	1
Primary filter Material	Metal mesh
Secondary filter Quantity	1
Material	Urethane sponge
Objects for collection	Water soluble mist
Maximum inlet concentration [mg/m³]	20
Recommended breakers [A]	20
Power cord m	3 (4-core, without plug)
inch	118 (4-core, without plug)
Suction port diameter mm	φ200
inch	φ8
Drain port	Equipped with drain valve and drain tank
Dimensions WxDxH mm	850x650x1759
inch	33.5x25.6x69.3
Weight kg	185
lb	408
Paint color	JPMA (Japan Paint Manufacturing Association) J11-833

VNA-SDN

Fullfilling safety measures.
Dust collector for explosive and flammable dust, aluminum and so on.



Effect on Kst values of 700
※Except 60DN



Explosion pressure diffusion port
Pressure from explosion is discharged into air to prevent damage to the equipment.



55 m/min

IE3

Premium efficiency motor
※Except VNA-30SDN/45SDN



In the unlikely event fire occurs in the equipment, extinguishing agent is dispensed.



Max. airflow

55 m/min

Premium efficiency motor
※Except VNA-30SDN/45SDN

Prevents reverse flow of blow force or fire to protect the worker.



Effective area was calculated based on "Explosive pressure discharge device technical guidelines(Revised version)NIIS-TR-No.38(2005)" in incorporated agency industrial safety institute laws.
Above figures are for standard equipment.
Please have the target dust evaluated for explosion potential (billed to customer).

Specifications

Model	VNA-30SDN		VNA-45SDN		VNA-60DN	
Power supply	Frequency 50Hz or 60Hz at 3-phase 200V					
Output	kW	1.5		2.2		3.7
	HP	2		3		5
Airflow	m³/min	0	15	25	0	40
	cfm	0	529	882	0	1412
Static pressure [kPa]	2.55	1.70	0.52	2.63	1.98	0.48
	Area	m²	9.0		13.5	18.0
		ft²	96.8		145.2	193.6
Filter	Quantity	2		3		4
	Shape	Woven plate (Anti-electrostatic filter)				
	Dust removal	Manual shaking				
Bucket capacity	L	22		35		25×2
	U.S.gallon	5.8		9.2		6.6×2
Recommended breakers [A]	15		20		30	
Power cord	m	5 (4-core, without plug)		196 (4-core, without plug)		
	inch					
Suction port diameter	mm	φ150		φ200		φ8
	inch	φ6		φ8		
Dimensions	mm	1020×1253×1754		1355×1328×1821		1546×1396×2055
	inch	40.2×49.4×69.1		53.4×52.3×71.7		60.9×55.0×81
Weight	kg	340		400		460
	lb	750		882		1015
Paint color	JPMA (Japan Paint Manufacturing Association) S11-344					

1. The dimensions mentioned above are only for the main unit. A check valve, an electrical box, the roof of outdoor specifications are not included.
2. A dust explosion-proof motor (motor having structure to prevent the invasion of the outside substance) is installed on VNA-30SDN and VNA-45SDN.
3. For countries with high efficiency motor regulation, the high efficiency Totally Enclosed Fan-cooled (non-explosion-proof) motor that meets the regulations of each country is installed. The model name will be DN or D.
4. In the case of power supply specification is not 200V50Hz/60Hz or 220V60Hz, the Totally Enclosed Fan-cooled (non-explosion-proof) motor is installed. The model name will be DN or D.

VN-SD

Fullfilling safety measures.
Dust collector for explosive and flammable dust, aluminum and so on.



Effect on Kst values of 400



Explosion pressure diffusion port
Pressure from explosion is discharged into air to prevent damage to the equipment.

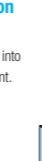
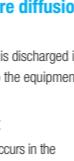


35 m/min

Max. airflow



In the unlikely event fire occurs in the equipment, extinguishing agent is dispensed.



Prevents reverse flow of blow force or fire to protect the worker.



Specifications

Model	VN-30SD		VN-45SD			
Power supply	Frequency 50Hz or 60Hz at 3-phase 200V					
Output	kW	1.5		2.2		
	HP	2		3		
Airflow	m³/min	0	15	24.5		
	cfm	0	529	865		
Static pressure [kPa]	2.84	1.62	0.39	2.75		
	Area	m²	7.5	10.0		
		ft²	80.7	107.6		
Filter	Quantity	3		4		
	Shape	Woven plate (canvas filter plus aluminum sheet with earthing conductor)				
	Dust removal	Manual shaking				
Bucket capacity	L	27		38		
	U.S.gallon	7.1		10.0		
Recommended breakers [A]	15		20			
Power cord	m	5 (4-core, without plug)		196 (4-core, without plug)		
	inch					
Suction port diameter	mm	φ150		φ200		
	inch	φ6		φ8		
Dimensions	mm	650×850×1656		850×900×1812		
	inch	25.6×33.5×65.2		33.5×35.5×71.4		
Weight	kg	220		280		
	lb	486		618		
Paint color	JPMA (Japan Paint Manufacturing Association) S11-344					

1. The dimensions mentioned above are only for the main unit. A check valve, an electrical box, the roof of outdoor specifications are not included.
2. A dust explosion-proof motor (motor having structure to prevent the invasion of the outside substance) is installed.
3. For countries with high efficiency motor regulation, the high efficiency totally Enclosed Fan-cooled (non-explosion-proof) motor that meets the regulations of each country is installed. The model name will be DN or D.
4. In the case of power supply specification is not 200V50Hz/60Hz or 220V60Hz, the Totally Enclosed Fan-cooled (non-explosion-proof) motor is installed. The model name will be DN or D.

*Performance values might change from those shown on custom order specifications.

PiE-SDN

Fullfilling safety measures.
Dust collector for explosive and flammable dust, aluminum and so on.



Dust-proof electrical equipment box
Structure is sealed by packing to make dust explosions unlikely to occur.

Check valve
Prevents reverse flow of blow force or fire to protect the worker.

Explosion pressure diffusion port
Pressure from explosion is discharged into air to prevent damage to the equipment.

Anti-electrostatic woven filter
Pulse jet

IE3
Inflammable powder/dust that might explode

150 m/min
Max. airflow

Premium efficiency motor
※Except PiE-30SDN/45SDN

Model	Kst value (x10³KPa·m/s or less)	Pmax(x10³KPa or less)
PIE-30SDN	700	11.5
PIE-45SDN	700	11.5
PIE-60DN	300	11.0
PIE-75DN	300	11.0
PIE-120DN	300	11.0
PIE-150DN	300	11.0

Effective area was calculated based on "Explosive pressure discharge device technical guidelines(Revised version)NIIS-TR-No.38(2005)" in incorporated agency industrial safety institute laws.
Above figures are for standard equipment.

Please have the target dust evaluated for explosion potential (billed to customer).

1. The dimensions mentioned above are only for the main unit. A check valve, an electrical box, the roof of outdoor specifications are not included.
2. A dust explosion-proof motor (motor having structure to prevent the invasion of the outside substance) is installed on PIE-30SDN and PIE-45SDN.
3. For countries with high efficiency motor regulation, the high efficiency totally Enclosed Fan-cooled (non-explosion-proof) motor that meets the regulations of each country is installed. The model name will be DN or D.
4. In the case of power supply specification is not 200V50Hz/60Hz or 220V60Hz, the Totally Enclosed Fan-cooled (non-explosion-proof) motor is installed. The model name will be DN or D.

1. The dimensions mentioned above are only for the main unit. A check valve, an electrical box, the roof of outdoor specifications are not included.
2. A dust explosion-proof motor (motor having structure to prevent the invasion of the outside substance) is installed on PIE-30SDN and PIE-45SDN.
3. For countries with high efficiency motor regulation, the high efficiency totally Enclosed Fan-cooled (non-explosion-proof) motor that meets the regulations of each country is installed. The model name will be DN or D.
4. In the case of power supply specification is not 200V50Hz/60Hz or 220V60Hz, the Totally Enclosed Fan-cooled (non-explosion-proof) motor is installed. The model name will be DN or D.

1. The dimensions mentioned above are only for the main unit. A check valve, an electrical box, the roof of outdoor specifications are not included.
2. A dust explosion-proof motor (motor having structure to prevent the invasion of the outside substance) is installed on PIE-30SDN and PIE-45SDN.
3. For countries with high efficiency motor regulation, the high efficiency totally Enclosed Fan-cooled (non-explosion-proof) motor that meets the regulations of each country is installed. The model name will be DN or D.
4. In the case of power supply specification is not 200V50Hz/60Hz or 220V60Hz, the Totally Enclosed Fan-cooled (non-explosion-proof) motor is installed. The model name will be DN or D.

1. The dimensions mentioned above are only for the main unit. A check valve, an electrical box, the roof of outdoor specifications are not included.
2. A dust explosion-proof motor (motor having structure to prevent the invasion of the outside substance) is installed on PIE-30SDN and PIE-45SDN.
3. For countries with high efficiency motor regulation, the high efficiency totally Enclosed Fan-cooled (non-explosion-proof) motor that meets the regulations of each country is installed. The model name will be DN or D.
4. In the case of power supply specification is not 200V50Hz/60Hz or 220V60Hz, the Totally Enclosed Fan-cooled (non-explosion-proof) motor is installed. The model name will be DN or

SNP

Space saving dust collector from the use of plate filter.



Paint color JPMA (Japan Paint Manufacturing Association) 634

See page 27 of specification table

SI

Down flow & Side inlet type woven filter
Safe and hygienic filter replacement

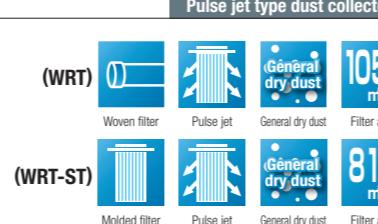


Paint color JPMA (Japan Paint Manufacturing Association) F35-85A

See page 30 of specification table

WRT/WRT-ST

Bestseller among large blowforce dust collectors
Large filter selection gives wide-ranging response potential(WRT)
Space saving & low cost by
Molded cartridge filter(WRT-ST)



Paint color JPMA (Japan Paint Manufacturing Association) 634

See page 27-29 of specification table

BV

Ideal for air bleeding from silos and hoppers.

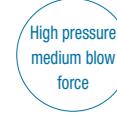


Paint color JPMA (Japan Paint Manufacturing Association) 634

See page 30 of specification table

CT

High vacuum resistant body ideal for pneumatic conveying and central cleaning.



Paint color JPMA (Japan Paint Manufacturing Association) 634

See page 30 of specification table

*Performance values might change from those shown on custom order specifications.

PPC

Molded filter type
Ideal for air bleeding from silos and hoppers.



Paint color JPMA (Japan Paint Manufacturing Association) 634

See page 31 of specification table

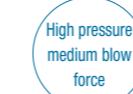
Pulse jet type dust collector



Filter area

MF

Compact, cylindrical body is ideal for intake of pneumatic conveying.



Paint color JPMA (Japan Paint Manufacturing Association) 634

See page 32 of specification table

Pulse jet type dust collector



Filter area

TFP

The bag-in bag-out concept allows replacing filters & ejecting dust without touching the dust.



Paint color JPMA (Japan Paint Manufacturing Association) 634

See page 32 of specification table

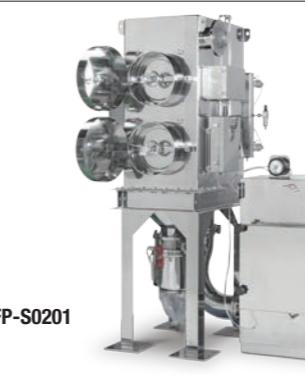
Bag-in, bag-out dust collector



Filter area

TFP-S

High-pharmacologically-active dust collector.



Paint color JPMA (Japan Paint Manufacturing Association) 634

See page 32 of specification table

High-pharmacologically-active dust collector.



Filter area

HGD

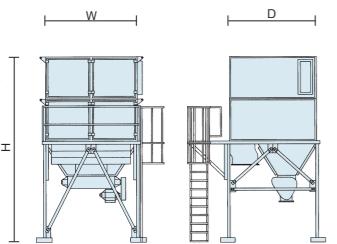
Removes dioxins, acid gas, heavy metals and fine particles from high temperature incinerated gas.



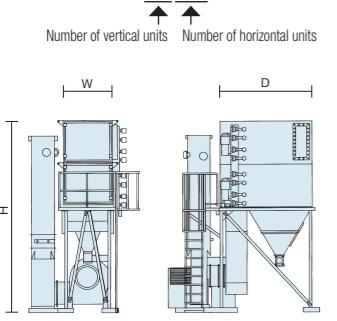
We design to match customer needs.

See page 32 of specification table

High temperature toxic gas removal device

**Model description**

Basic unit is expressed by 1H1W. A total of 34 filters are installed inside and provide a total surface area of 45 square meters. Assembling these units horizontally and vertically gives the model type shown at right. Model types combinable as standard configurations in this catalog are listed.

Example : SNP-3H 2W**SNP-M series fans exhaust muffler specifications**

- Fans are selectable from following types.
(Specify a power frequency of 50Hz/60Hz.)
- Select from among the SNP-1M
...output 5.5kW-7.5kW-11kW types.
- Select from among the SNP-2M
...output11kW-15kW-18.5kW types.
- Select from among the SNP-3M
...output15kW-18.5kW-22kW-30kW types.

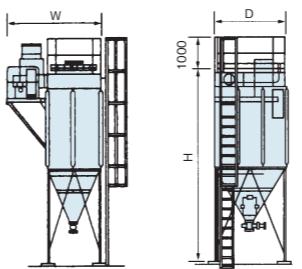
Type of exhaust muffler is determined by the fan type that was selected.

SNP

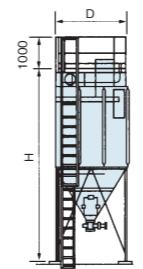
Model	Dimensions						Filter		No. of valves	Air supplied quantity [L/min]	Weight			
	mm			inch			Area				kg	lb		
	W	D	H	W	D	H	m ²	ft ²						
SNP-2H1W	1150	2182	4708	45.3	86.0	185.4	90	968	68	187	1550	3418		
-3H1W	1150	2182	5808	45.3	86.0	228.7	135	1452	102	12	280	4631		
-4H1W	1150	2182	6908	45.3	86.0	272.0	180	1936	136	16	420	5513		
-2H2W	2300	2182	5031	90.6	86.0	198.1	180	1936	136	16	420	6836		
-3H2W	2300	2182	6131	90.6	86.0	241.4	270	2905	204	24	560	4200		
-4H2W	2300	2182	7231	90.6	86.0	284.7	360	3873	272	32	700	5100		
-5H2W	2300	2344	8331	90.6	92.3	328.0	450	4842	340	40	840	6300		
												13892		

●Filter: Plate filter ●Dust removal: Automatic pulse jet

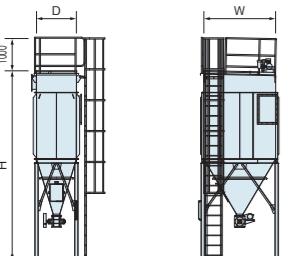
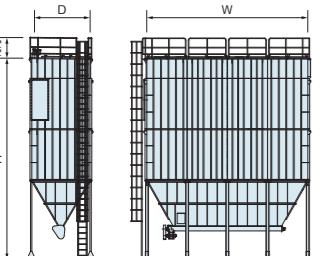
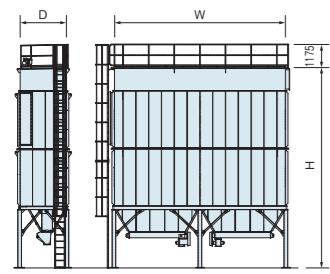
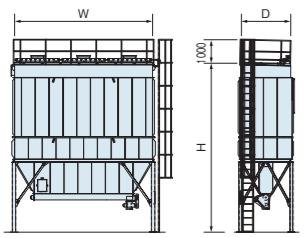
-3126T	2800	2160	5704	110.3	85.1	224.6	120.1	1292	126	1933	76	14	340	3200	7056
-3144T	3200	2160	5704	126.0	85.1	224.6	137.2	1476	144	1933	76	16	390	3400	7497
-5126B	2800	1810	5974	110.3	71.3	235.2	157.8	1697	126	2540	100	14	340	3200	7056
-5144B	3200	1810	5974	126.0	71.3	235.2	180.3	1940	144	2540	100	16	390	3500	7718
-5126T	2800	2160	6274	110.3	85.1	247.1	157.8	1697	126	2540	100	14	340	3500	7718
-5144T	3200	2160	6274	126.0	85.1	247.1	180.3	1940	144	2540	100	16	390	3900	8510
-5162T	3600	2160	6274	141.8	85.1	247.1	202.8	2182	162	2540	100	18	440	4200	9261
-5180T	4000	2160	6274	157.5	85.1	247.1	225.4	2425	180	2540	100	20	480	4700	10364
-5198T	4400	2160	6274	173.3	85.1	247.1	247.9	2667	198	2540	100	22	530	5000	11025

**SNP-M Series (General purpose filtration system)**

Model	SNP-1M			SNP-2M			SNP-3M									
	Filter area	m ²	ft ²	Quantity	34	68	102	Dimensions WxDxH	mm	1150×2182×3608	1150×2182×4708	1150×2182×5808				
Filter Box Unit	Dimensions WxDxH	mm	45.3×86.0×142.1	ft ²	45.3×86.0×185.4	mm	45.3×86.0×228.7	kg	1200	1650	2200	lb	2646	3639	4851	
Dust removal system (Pulse jet: stationary type)	No. of valves	4	8	12	Air supplied quantity [L/min]	140	187	280								
Discharge unit	Rotary valve															
Control panel	Indoor wall-mounted type (standard) / Outdoor type (option)															
Model application range	Applicable model: SNP-1M			Applicable model: SNP-2M			Applicable model: SNP-3M									
Output	kW	5.5	7.5	11	15	18.5	22	30	HP	7.3	10	15	20	30	40	
Airflow	m ³ /min	45	65	90	135	180	200	270	cfm	1589	2295	3178	4767	6356	7062	9534
Static pressure [kPa]	3.92															
Fan type	Single inlet type turbo fan (motor direct-coupled type)															
Auxiliaries	Manually airflow adjusting valve															
Type of exhaust silencer	Exhaust pipe diameter	mm	φ380	mm	φ550	mm	φ650	mm	inch	φ15	φ21.7	φ25.6	Noise suppression	10 dB (A) reduction from original fan noise		

**WRT-3000/5000 Series (with an onboard fan)**

Model	Dimensions			Filter			No. of valves	Air supplied quantity [L/min]	Output		Filter		Weight						
	mm	inch	Airflow	Static pressure [kPa]	KW	HP	Area m ²	Length ft ²	Quantity	Length mm	Length inch	kg	lb						
WRT-3054BF	2565	1810	5185	101.0	71.3	204.2	5.5	1765	5.5	7.3	51.5	554	90	1933	76	6	150	2300	5072
-3072BF	2965	1810	5185	116.8	71.3	204.2	7.5	2472	7.5	10	11	15	90	3178	72	8	200	2600	5733
-3054TF	2565	2160	5435	101.0	85.1	214	10	3178	10	15	85.8	923	90	1933	76	10	240	2800	6174
-3072TF	2965	2160	5435	116.8	85.1	214	11	2472	11	15	68.6	738	72	1933	76	8			


WRT-7000 Series (with a separate fan)

Model	Dimensions						Filter						No. of valves	Air supplied quantity [L/min]	Weight			
	mm			inch			Area		Quantity		Length				kg	lb		
	W	D	H	W	D	H	m²	ft²	Long	Short	Long	Short						
WRT-7080	2000	2160	7254	78.8	85.1	285.6	132.7	1427	72	8	3500	2133	138	84	10	330	3300	7275
-7096	2400	2160	7644	94.5	85.1	301	160.3	1724	88	8	3500	2133	138	84	12	400	3800	8378
-7112	2800	2160	7794	110.3	85.1	306.8	182.5	1963	96	16	3500	2133	138	84	14	460	4300	9480
-7128	3200	2160	8054	126.0	85.1	317	210.1	2260	112	16	3500	2133	138	84	16	530	4900	10803
-7144	3600	2160	7379	141.8	85.1	290.5	237.8	2558	128	16	3500	2133	138	84	18	590	5300	11685
-7160	4000	2160	7379	157.5	85.1	290.5	265.4	2855	144	16	3500	2133	138	84	20	660	5800	12787
-7176	4400	2160	7379	173.3	85.1	290.5	287.6	3094	152	24	3500	2133	138	84	22	720	6200	13669
-7192	4800	2160	7379	189.0	85.1	290.5	315.2	3391	168	24	3500	2133	138	84	24	790	6600	14551
-7208	5200	2160	7379	204.8	85.1	290.5	342.8	3688	184	24	3500	2133	138	84	26	860	7100	15653
-7224	5600	2160	7379	220.5	85.1	290.5	365.1	3928	192	32	3500	2133	138	84	28	920	7500	16535
-7240	6000	2160	7379	236.3	85.1	290.5	392.7	4225	208	32	3500	2133	138	84	30	990	8000	17637

WRT-S10000 Series (with a separate fan)

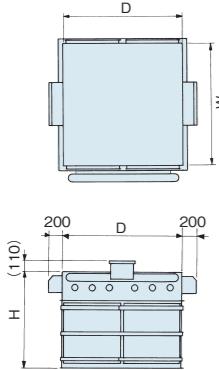
Model	Dimensions						Filter						No. of valves	Air supplied quantity [L/min]	Weight			
	mm			inch			Area		Quantity		Length				kg	lb		
	W	D	H	W	D	H	m²	ft²	Long	Short	Long	Short						
WRT-S10112	2800	2160	8825	110.3	85.1	347.5	270.6	2912.7	104	8	5080	2540	200	100	14	460	6600	14551
-S10128	3200	2160	8825	126.0	85.1	347.5	310.7	3344.3	120	8	5080	2540	200	100	16	530	7200	15874
-S10160	4000	2160	8825	157.5	85.1	347.5	390.9	4207.6	152	8	5080	2540	200	100	20	660	8500	18740
-S10192	4800	2160	8825	189.0	85.1	347.5	461.1	4963.2	176	16	5080	2540	200	100	24	780	10000	22047
-S10224	5600	2160	8825	220.5	85.1	347.5	541.2	5825.4	208	16	5080	2540	200	100	28	920	11400	25133
-S10256	6400	2160	9025	252.0	85.1	355.3	621.5	6689.8	240	16	5080	2540	200	100	32	1050	13100	28881
-S10288	7200	2160	9025	283.5	85.1	355.3	691.6	7444.3	264	24	5080	2540	200	100	36	1170	14400	31747
-S10320	8000	2160	9025	315.0	85.1	355.3	771.8	8307.6	296	24	5080	2540	200	100	40	1300	15900	35054

WRT-19000 Series (with a separate fan)

Model	Dimensions						Filter						No. of valves	Air supplied quantity [L/min]	Weight			
	mm			inch			Area		Quantity		Length				kg	lb		
	W	D	H	W	D	H	m²	ft²	Long	Short	Long	Short						
WRT-19320	7000	3100	10655	275.6	122.1	419.5	844.4	9085	320	5350	210	32	1360	20800	45864			
-19360	7800	3100	10655	307.1	122.1	419.5	950.0	10222	360	5350	210	36	1520	22800	50274			
-19400	8600	3100	10655	338.6	122.1	419.5	1055.6	11358	400	5350	210	40	1690	25400	56007			

WRT-ST

Model	Dimensions						Filter						No. of valves	Air supplied quantity [L/min]	Weight		
	mm			inch			Area		Quantity		Length				kg	lb	
	W	D	H	W	D	H	m²	ft²	Long	Short	Long	Short					

**PPC**

Model	Dimensions			Filter			No. of valves	Air supplied quantity [L/min]	Weight					
	mm			inch		Area			kg	lb				
	W	D	H	W	D	H	m ²	ft ²	mm	inch				
PPC-1022	605	855	855	23.9	33.7	2.8	30	4	250	9.9	2	40	140	309
-2022			605		43.6	5.6	60		500	19.7			160	353
-3022			1355		53.4	8.4	90		750	29.6			180	397
-1032		855	855		33.7	4.2	45	6	250	9.9	3	55	170	375
-2032			855		43.6	8.4	90		500	19.7			200	441
-3032			1355		53.4	12.6	135		750	29.6			230	508
-1042		855	855	47.5	33.7	5.6	60	8	250	9.9	4	75	220	486
-2042			1205		43.6	11.2	120		500	19.7			260	574
-3042			1355		53.4	16.8	180		750	29.6			300	662
-1033	855	855	855	33.7	33.7	6.3	67	9	250	9.9	3	60	210	464
-2033			855		43.6	12.6	135		500	19.7			240	530
-3033			1355		53.4	18.9	203		750	29.6			270	596
-1043		1205	855	47.5	33.7	8.4	90	12	250	9.9	4	80	260	574
-2043			1105		43.6	16.8	180		500	19.7			300	662
-3043			1355		53.4	25.2	271		750	29.6			350	772
-1053	1455	855	855	57.3	33.7	10.5	112	15	250	9.9	5	100	320	706
-2053			1105		43.6	21.0	225		500	19.7			370	816
-3053			1355		53.4	31.5	338		750	29.6			420	927
-1063		1705	855	67.2	33.7	12.6	135	18	250	9.9	6	120	360	794
-2063			1105		43.6	25.2	271		500	19.7			420	927
-3063			1355		53.4	37.8	406		750	29.6			480	1059
-1044	1205	855	855	47.5	33.7	11.2	120	16	250	9.9	4	90	350	772
-2044			1105		43.6	22.4	241		500	19.7			410	905
-3044			1355		53.4	33.6	361		750	29.6			470	1037
-1054		1455	855	57.3	33.7	14.0	150	20	250	9.9	5	110	420	927
-2054			1105		43.6	28.0	301		500	19.7			490	1081
-3054			1355		53.4	42.0	451		750	29.6			560	1235
-1064	1705	855	855	67.2	33.7	16.8	180	24	250	9.9	6	130	480	1059
-2064			1105		43.6	33.6	361		500	19.7			560	1235
-3064			1355		53.4	50.4	542		750	29.6			640	1412
-1045		1205	855	47.5	33.7	14.0	150	20	250	9.9	4	95	420	927
-2045			1105		43.6	28.0	301		500	19.7			490	1081
-3045			1355		53.4	42.0	451		750	29.6			560	1235
-1055	1455	855	855	57.3	33.7	17.5	188	25	250	9.9	5	120	490	1081
-2055			1105		43.6	35.0	376		500	19.7			570	1257
-3055			1355		53.4	52.5	564		750	29.6			650	1434
-1065		1705	855	67.2	33.7	21.0	225	30	250	9.9	6	140	550	1213
-2065			1105		43.6	42.0	451		500	19.7			630	1390
-3065			1355		53.4	63.0	677		750	29.6			720	1588
-1046	1205	855	855	47.5	33.7	16.8	180	24	250	9.9	4	100	460	1014
-2046			1105		43.6	33.6	361		500	19.7			530	1169
-3046			1355		53.4	50.4	542		750	29.6			600	1323
-1056		1455	855	57.3	33.7	21.0	225	30	250	9.9	5	125	530	1169
-2056			1105		43.6	42.0	451		500	19.7			610	1346
-3056			1355		53.4	63.0	677		750	29.6			690	1522
-1066	1705	855	855	67.2	33.7	25.2	271	36	250	9.9	6	150	600	1323
-2066			1105		43.6	50.4	542		500	19.7			690	

HSF

Amano's unique high-sealing rotary feeder brings low-cost and low crush rate.

This is a compact high-pressure feed system using a high-sealing rotary feeder. The dust supply section is simple compared to systems using blow pots. This is a cyclic low-speed high-concentration transfer feed system having a transfer speed of 4 to 6 meters per second so there is almost no danger of crushing. Employing a custom helical rotor drastically reduces crushing of dust particles due to bite-in.

HAF

Ideal for conveyance dust that cannot be allowed to crush and for long distance conveyance.

Plug shaped particles are pressed, moved and fed by static pressure from conveyance air feed. In the HAF system there is almost no crushing for conveying dust particles since the conveyance speed is low.

LAF

Ideal for short distance conveyance or conveying from 1 to multiple locations.

By using the dynamic pressure of the conveyance air, the particles are flown through the conveyance pipe at relatively low densities. The conveyance speed is much greater than that of the high-pressure conveyance system at a typical speed of 20 to 30 m/s.

VAF

Ideal for conveying/feeding from several locations to one location.

By sucking both particles and air, the particles are conveyed by the air flow resulting from sub-atmospheric pressure. By using dynamic pressure of the conveyance air, the particles are lifted and transported. The conveyance air speed is typically 20 to 30 m/s. Vacuum conveyance produces cooling and drying effects on the conveyed items, and is best suited in conveying particles from narrow and deep locations.

Test plant

At this plant, pneumatic conveying testing of dust provided by the customer is carried out.

The dust particle handling plant makes conveying tests of the target dust particles for conveying and accumulates data for designing an actual plant. Here, equipment is installed to allow dealing with dust by efficiently gathering data for handling diverse types of dust particles. The conveying distance can be measured from short distances of 39 meters to long distances of 184 meters. Here, 10 or more conveyance test patterns are executed to match the customer's application.



Continuous dense phase high pressure conveyance

- Minimal crushing
- High quality material conveyance
- Compact



Specifications

Conveyance speed	1~15m/s
Conveyance quantity	~20t/h
Conveyance distance	~300m
Conveyance pressure	~+300kPa
Air source	Compressor

High pressure conveyance

- Minimal crushing
- High quality material conveyance
- Long-distance large-volume conveyance



Specifications

Conveyance speed	1~15m/s
Conveyance quantity	~200t/h
Conveyance distance	~2000m
Conveyance pressure	~+700kPa
Air source	Compressor

Low pressure conveyance

- Low cost
- Multiple conveyance



Specifications

Conveyance speed	15~40m/s
Conveyance quantity	~100t/h
Conveyance distance	~200m
Conveyance pressure	~+100kPa
Air source	Turbo / Roots blower

Low-pressure intake conveyance

- Low cost
- Cluster conveyance



Specifications

Conveyance speed	15~40m/s
Conveyance quantity	~100t/h
Conveyance distance	~200m
Conveyance pressure	~+60kPa
Air source	Turbo / Roots blower

Dust particle handling plant

**EV/FV**

Installable at a reasonable cost.
Compact pneumatic conveying feeder.



Specifications

Model	EV-5L	EV-10L
Suction air source	Ejector pump	
Dimensions [mm/inch]	Φ405×1160 16×45.7	
Filter Quantity	1	
Filter area [m ² /ft ²]	0.7 7.5	
Dust removal	Automatic pulse jet (At fixed interval)	
Compressed air consumption [m ³ /min]	Equivalent to 0.5 screw compressor at 3.7kW	Equivalent to 1.0 screw compressor at 7.5kW
Compressed air coupling port	15A	
Exhaust valve specifications	Weight damper method	
Control system	Air regulation (electrical control also okay-OPT)	
Suction [mm/inch]	Φ25 Φ1	Φ38 Φ1.5
hose diameter [inch]		
Main material	SUS or SPHC	
Weight [kg/lb]	90 199	6A 0.3A

Suction type general-purpose dust conveying feeder

Specifications

Model	FV-3
Suction air source	Brushless blower motor
Power supply	3-phase 200V 50/60Hz common use
Output [kW/HP]	2.0 2.6
Dimensions [mm/inch]	Φ405×1295 16×51
Filter Quantity	1
Filter area [m ² /ft ²]	0.7 7.5
Dust removal	Automatic pulse jet (At fixed interval)
Compressed air consumption [L/min]	20 L/min 0.5MPa to 0.7MPa (for pulse jet)
Control system	Electrical control
Suction [mm/inch]	Φ38 Φ1.5
hose diameter [inch]	
Main material	SUS or SPHC
Weight [kg/lb]	80 177

FPV

Small size pneumatic conveying feeder.

No tools required for dismantling



Specifications

Model	FPV-40	FPV-40X	FPV-50	FPV-50X	FPV-65	FPV-65X
Filter box	Outer diameter [mm/inch] Nominal 14(350A)	Φ356(350A) 14(350A)	Φ456(450A) 18(450A)	Φ558(550A) -50(intake)		
Design withstand pressure [kPa]						
Dust removal	Method Diaphragm valve [pcs.] Pulse jet compressed air pressure [MPa]	1	2	3	Automatically pulse jet (At fixed interval)	
					Normally 0.4 to 0.5	
Filter	Name Material Quantity	Standard filter Polyester	Resin filter Polyethylene	Standard filter Polyester	Resin filter Polyethylene	Standard filter Polyester
		1	9	2	18	3
	Area [m ² /ft ²]	1.17	1.07	2.34	2.13	3.50
		12.5	11.5	25.1	22.9	37.6
	Cleaning (water-washing)	×	○	×	○	×
Section hopper	Suction port [mm/inch] diameter (nominal) Slope angle standard [degrees]	38.1 (Sanitary 1.5S ferrule) 1.5 (Sanitary 1.5S ferrule)	50.8 (Sanitary 2.0S ferrule) 2 (Sanitary 2.0S ferrule)	60	6.55 (150A)	8.55 (200A)
					ISO standard ferrule	
Electrical components	Standard (pilot valve box)		Pulse jet board & pilot valve 200V/100V selectable specifications			
Unit material	Material		SUS304			
	Surface treatment		Inner/outer surface buffing (#32 Inner/outer surface #400)			
Weight	[kg/lb]	Approximately 55 Approximately 122	Approximately 55 Approximately 122	Approximately 70 Approximately 155	Approximately 85 Approximately 166	Approximately 95 Approximately 188

AGR

Water-washable & modular design.

No tools required for dismantling



- Space saving
- Small airflow
- Minimal crushing
- No power source required

Specifications

Model	AGR-130	AGR-150	AGR-200M	AGR-200
Shell diameter [mm/inch]	130 5.2	150 5.9	200 7.9	
Overall height [mm/inch]	859 33.9	972 38.3	1050 41.4	1166 46.0
1batch quantity [L/U.S.gallon]	3 0.8	4.2 1.1	8 2.1	12 3.1
Conveying capability [L/h]	30~100	100~300	300~700	500~1200
Filter Quantity				1
Compressed air consumption at 0.6MPa [L/min]				100~500
Material of main unit				SUS304/SUS316L
Filter material				PTFE/SUS316L
Weight [kg/lb]	32 71	50 111	- -	55 122

Filter for Compact Dust Collectors

Main filter is listed. Others are also available. The listed product names and commercial names are each trademarks or registered trademarks of their companies.

Name	Standard filter (Polyester Spunbond)			
Material	Polyester			
Surface treatment	-			
Corresponding models	PiF			
Application	General dried particles (particle diameter about 10µm)			
Features	For dust having a particle diameter of about 10µm.			
	Collecting efficiency	Heat resistant temperature (F)	Dust removal	Noncombustibility
	<input type="radio"/>	normal temperature 40°C (104°)	Pulse jet	<input checked="" type="checkbox"/>

Name	Canvas filter			
Material	Cotton			
Surface treatment	-			
Corresponding models	VNA			
Application	General dried particles (particle diameter about 10µm)			
Features	For dust having a particle diameter of about 10µm.			
	Collecting efficiency	Heat resistant temperature (F)	Dust removal	Noncombustibility
	<input type="radio"/>	normal temperature 40°C (104°)	Vibration	<input checked="" type="checkbox"/>

Name	Anti-electrostatic filter			
Material	Polyester			
Surface treatment	Stainless evaporation			
Corresponding models	PIF-D/SD			
Application	Electrostatic characteristic dust (particle diameter about 10µm)			
Features	Specifications give high charge prevention effect and make cause of dust explosions unlikely to occur.			
	Collecting efficiency	Heat resistant temperature (F)	Dust removal	Noncombustibility
	<input type="radio"/>	normal temperature 40°C (104°)	Pulse jet	<input checked="" type="checkbox"/>

Name	Canvas Finefil filter			
Material	Cotton + fluororesin porous thin film			
Surface treatment	Fluororesin porous thin film laminate processing			
Corresponding models	VNA			
Application	Dried fine particles (particle diameter 10µm or less)			
Features	For dust having a particle diameter of about 10µm or less.			
	Collecting efficiency	Heat resistant temperature (F)	Dust removal	Noncombustibility
	<input type="radio"/>	normal temperature 40°C (104°)	Vibration	<input checked="" type="checkbox"/>

Name	OW filter			
Material	Polyester+Acrylic resin			
Surface treatment	-			
Corresponding models	PIF			
Application	Dust including watery oil			
Features	Maintains breathability even in dust containing oily and wet particles			
	Collecting efficiency	Heat resistant temperature (F)	Dust removal	Noncombustibility
	<input type="radio"/>	normal temperature 40°C (104°)	Pulse jet	<input checked="" type="checkbox"/>

Name	Anti-electrostatic filter			
Material	Polyester			
Surface treatment	Metal wire net weaving			
Corresponding models	VNA-SDN/DN			
Application	electrification characteristic dust (particle diameter about 10µm)			
Features	Specifications give high charge prevention effect and make cause of dust explosion unlikely to occur.			
	Collecting efficiency	Heat resistant temperature (F)	Dust removal	Noncombustibility
	<input type="radio"/>	normal temperature 40°C (104°)	Vibration	<input checked="" type="checkbox"/>

Name	Resin filter			
Material	High molecular weight polyethylene			
Surface treatment	Polyethylene sintering			
Corresponding models	IX-IXR · FPV · FP-N · FPV-2S			
Application	Toner fine powder (particle size 10µm or less)			
Features	For fine powders such as toner. Water-washable			
	Collecting efficiency	Heat resistant temperature (F)	Dust removal	Noncombustibility
	<input type="radio"/>	normal temperature 40°C (104°)	Pulse jet	<input checked="" type="checkbox"/>

Name	Standard filter (Polyester Spunbond)			
Material	Polyester			
Surface treatment	-			
Corresponding models	FCN · Mi · PiH			
Application	General dried particles (particle diameter about 10µm)			
Features	For dust having a particle diameter of about 10µm.			
	Collecting efficiency	Heat resistant temperature (F)	Dust removal	Noncombustibility
	<input type="radio"/>	normal temperature 40°C (104°)	Pulse jet	<input checked="" type="checkbox"/>

Name	Electret filter			
Material	Polyester+polyethylene+polypropylene			
Surface treatment	-			
Corresponding models	VF-5HG · VF-5HN			
Application	Fumes adhering during laser marking			
Features	Due to erect fibers on inner surface is not prone to clogging even from adhering fumes, also efficiently traps high percentage of tiny attached fumes by static electricity.			
	Collecting efficiency	Heat resistant temperature (F)	Dust removal	Noncombustibility
	<input type="radio"/>	normal temperature 40°C (104°)	None	<input checked="" type="checkbox"/>

Name	Finefil filter			
Material	Polyester			
Surface treatment	Fluororesin porous thin film laminate processing			
Corresponding models	FCN · Mi · PiH			
Application	Dried fine particles (particle diameter 10µm or less)			
Features	For dust having a particle diameter of about 10µm or less.			
	Collecting efficiency	Heat resistant temperature (F)	Dust removal	Noncombustibility
	<input type="radio"/>	normal temperature 40°C (104°)	Pulse jet	<input checked="" type="checkbox"/>

Name	Nanofiber filter			
Material	PET blend cellulose			
Surface treatment	Nanofiber film laminate			
Corresponding models	FD-10			
Application	Dried fine particles (particle diameter 10µm or less) and fumes			
Features				

Do you know that...?

Hazardous dust collector explosions

Dust explosion. This hazard is not as well recognized as the threat from inflammable gas and fluids. However, compared to the same volume of gas the mass is considerably larger so the explosion is huge. Each dust or powder explosion that occurs leaves behind a tremendous amount of damage and tragedy. Amano does continual R&D work into preventing these dust and powder explosions.



Three conditions leading to dust explosions

Oxygen

Dust in concentration higher than the explosion lower limit threshold

Minimum ignition energy

Dust explosions occur when the 3 conditions of "oxygen", "Dust concentration higher than explosion threshold", and "minimum ignition energy" are all present. If even just 1 of these conditions can be eliminated then dust explosions can be prevented. So the crucial point in preventing explosions is eliminating oxygen or sources of sparks.

Dust and powders that might cause explosions

- Magnesium
- Aluminum
- Aluminum light alloys
- Iron powder(non-oxidized)
- Epoxy resin
- Cornstarch
- Titanium
- Toner
- Other inflammable powders

Consult Amano for dust explosion countermeasures



In client consultations for dust explosion pressure diffusion type dust collectors we always make a test analysis of the following items...

■ Explosion index Kst value

■ Maximum explosion pressure Pmax

■ Minimum ignition energy MIE

Test analysis ※To propose the best dust collector equipment.

※Tests fee will be charged Environmental Technology Co., Ltd. does the testing.

■ Dust explosion test overview (video)

<http://www.eiseiken.co.jp/service/funjin/index.html>

Guide to selecting hood types & required air blow quantity

■ Capture velocity determined by dust ordinances

Hood models	Capture velocity (m/s)
Enclosure type hood	0.7
External attached hood	Side intake type 1.0
	Downward intake type 1.0
	Upward intake type 1.2

※The capture velocity for the designated dust emission source may differ sometimes from the above content.

Hood installation methods	Capture velocity (m/s)
Method for enclosing entire device containing rotor	0.5
Method for covering opening in hood in a direction where dust caused by rotation of rotor might fly outwards.	5.0
Method for enclosing just the rotor	5.0

Remarks

1. The capture velocity used in this table is called the capture velocity when all hoods on all simultaneously used local exhaust ventilation devices are open.
2. The capture velocity used in this table is called the minimum wind velocity through the open side of the hood when the rotor is stopped.

Hood models	Sample drawing	Airflow (m³/min)
① Enclosure type	 Opening surface area : $A(m^2)=L(m) \times W(m)$ $A = \frac{\pi}{4} \cdot d^2$	$Q = 60 \cdot A \cdot V_o$ $= 60 \cdot A \cdot V_c \cdot k$ V_o : Average wind velocity at open side[m/s] V_c : Capture velocity[m/s] k : Correction coefficient for irregular wind velocity
② Externally attached type	 $A = \frac{\pi}{4} \cdot d^2$ $\text{Distance : } X(m)$ $A = L \cdot W$ $W/L > 0.2$	$Q = 60 \cdot V_c \cdot (10X^2 + A) \cdot k$ k : Correction coefficient for disturbance flow
③ Externally attached type	 $A = \frac{\pi}{4} \cdot d^2$ $A = L \cdot W$ $W/L > 0.2$	$Q = 60 \cdot 0.75 \cdot V_c \cdot (10X^2 + A) \cdot k$ k : Correction coefficient for disturbance flow
④ Externally attached type	 $\text{Canopy perimeter : } P = 2(L + W)$ $\text{Height coefficient : } H/L \leq 0.3$	$Q = 60 \cdot 1.4 \cdot P \cdot H \cdot V_c \cdot k$ k : Correction coefficient for disturbance flow

■ Correction coefficient

Opening area		Correction coefficient k	
m²	ft²	Enclosure type	Externally attached type
~0.2	~2	1.1	1.2
0.3~0.5	3~5	1.2	1.3
0.6~1.0	6~10	1.3	1.4
1.1~2.0	11~21	1.3	1.5
2.1~3.0	22~32	1.4	1.5
3.1~	33~	1.5	1.5

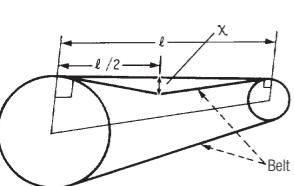
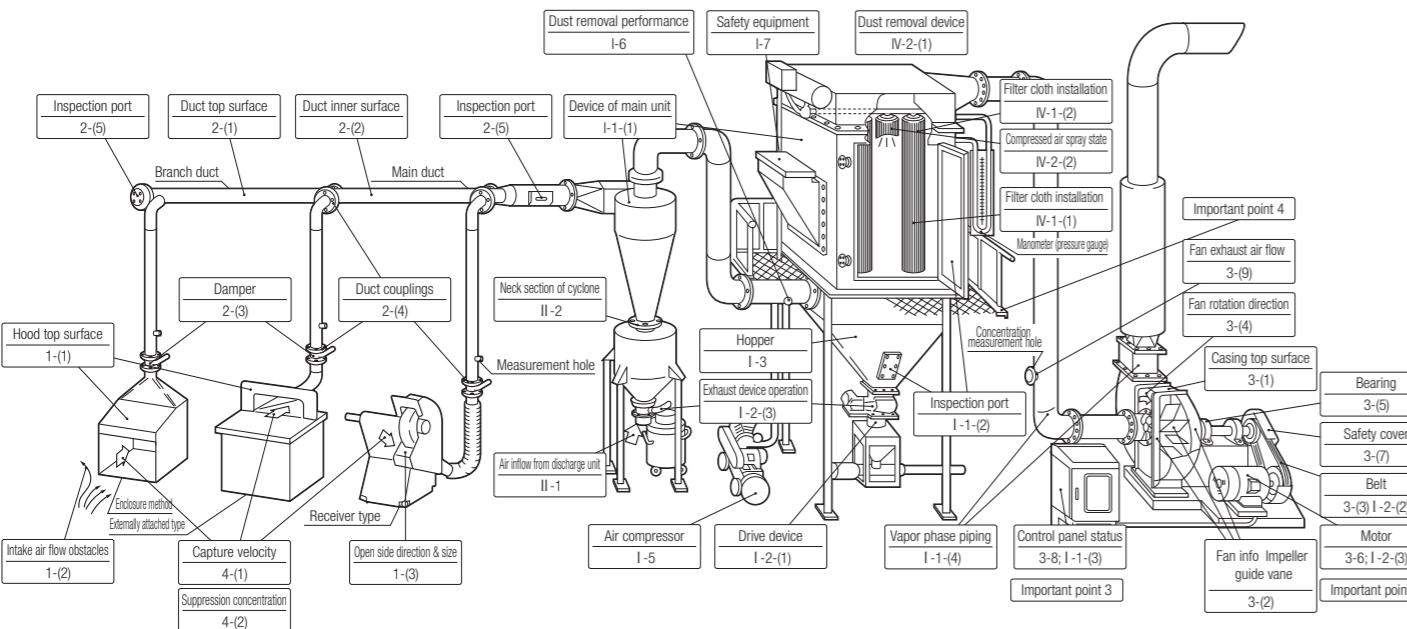
※Correction coefficient k is a given value depending on the situation.

Exhaust ventilation (dust removal) device periodic self-inspection guidelines

Autonomous inspection guidelines (Public bulletin No. 5 No. 6) based on Article 45 item 3 of the labor safety health law.

Daily inspections provide important data for pinpointing causes of equipment breakdowns, the periodic inspection table (6-month as general guide) is vital data for maintaining the equipment service life so be sure to do the daily self-inspections according to schedule.

For local exhaust (dust removal) devices, the periodic self-inspections and their records shall be filed for a period of 3 years.



Note 1 Belt slack amount (x) $0.01L < x < 0.02L$

Note 2 Range of electric motor surface temperature and peripheral (coolant) temperature.
Inspect fan after operating for 1 hour.



1.Hood • 2.Duct • 4. intake-exhaust performance

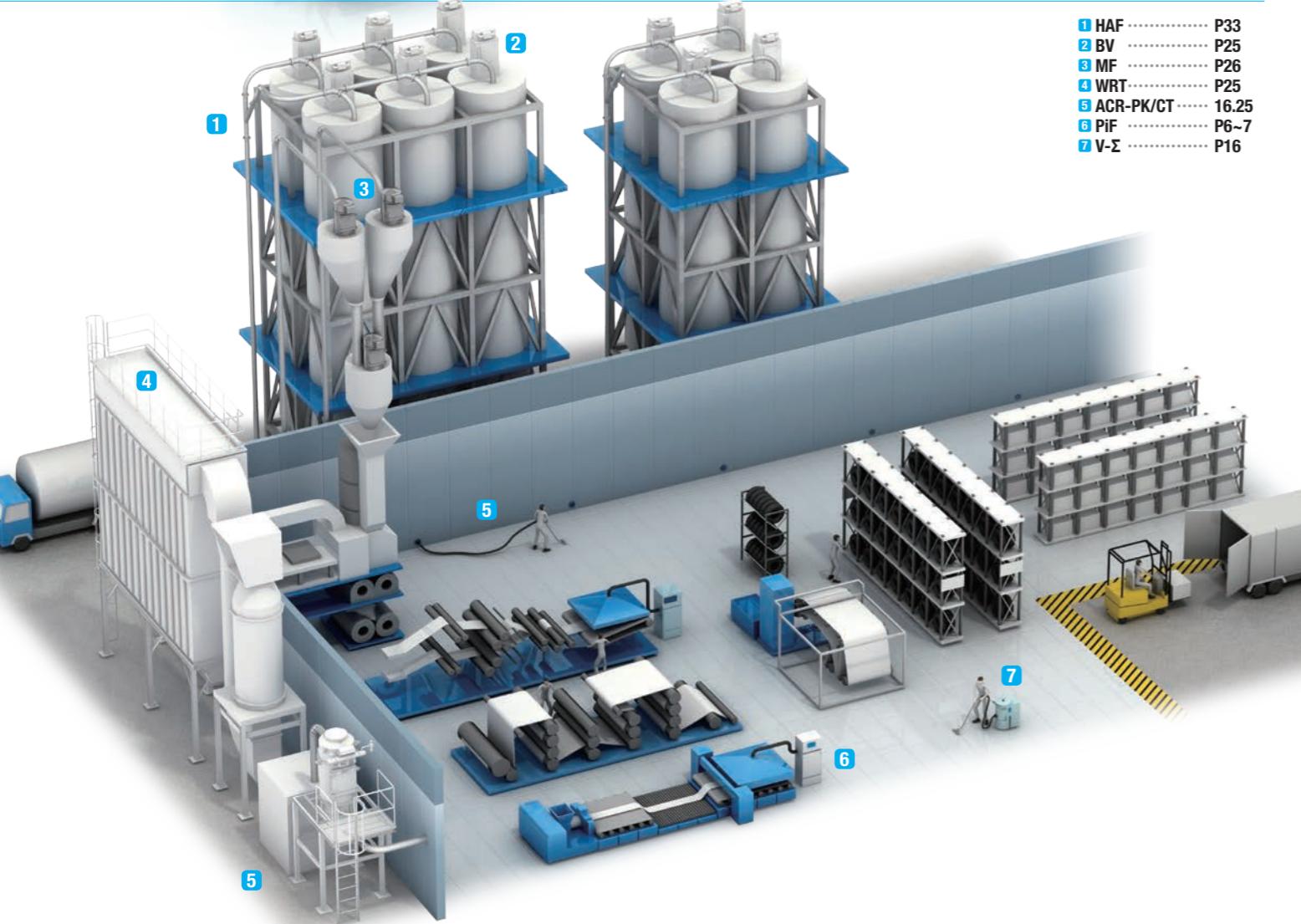
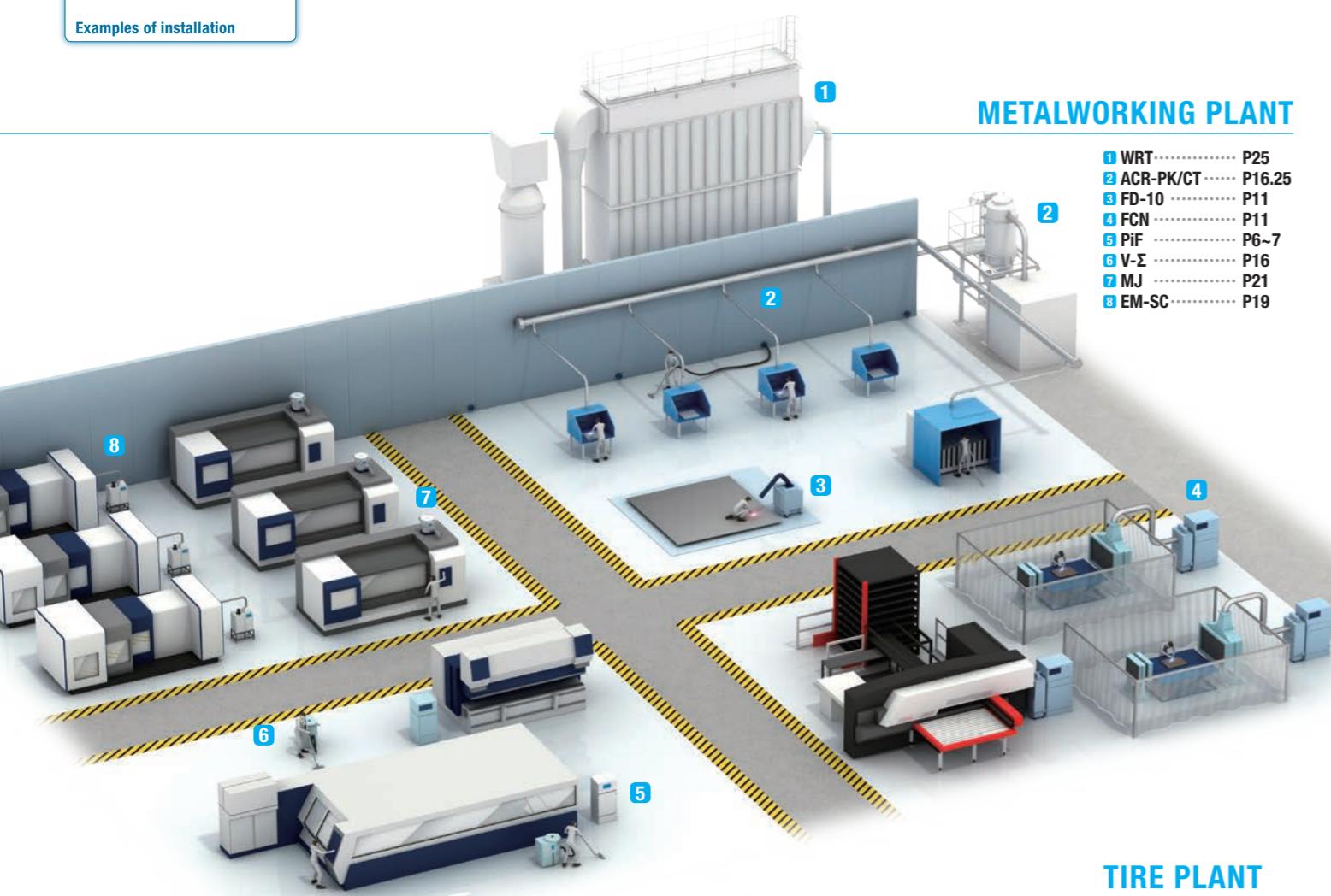
Item		Inspection item	Inspection method and tools	Judgement criteria
Hood and intake-exhaust performance	1- (1)	Check for any wear, corrosion or deformation	Visual, touch	Shall have no abnormalities that lower intake air capacity.
	1- (2)	Intake status (any impediments)	Visual, smoke tester	Shall completely suction in the air stream.
	1- (3)	Receiver type opening side direction & size	Visual	Shall be no dispersal to outside the hood.
	4- (1)	Capture velocity (at designated position)	Wind gauge	Shall be specified value or higher.
	4- (2)	Suppression concentration (at designated position)	Shall conform to work environment measurement criteria	Shall not exceed the specified value.
Duct	2- (1)	Check for any wear, corrosion or deformation on outer surface	Visual	Shall be no air leaks, and no increased resistance
	2- (2)	Check for any breakage and dust accumulation on inner surfaces	Ultrasonic thickness gauge, manometer, stethoscope to check for surface impacts	Shall be no abnormalities due to wear, corrosion, or depositions. ● Shall be no drastic difference versus design plate thickness ● Shall be no drastic difference in design value for static pressure of duct
Damper	2- (3)	Adjustment & clamped state of air flow adjuster valve opening Cutoff operation of selector valve, etc.	Visual, smoke tester	Shall be in a state capable of maintaining performance Shall operate correctly with light force.
Coupling section	2- (4)	Check for any breakage, missing items, looseness in coupling section	Visual, auditory, smoke tester, manometer (pressure gauge)	Shall have no air leakage and no inflow. ● Shall be no drastic difference in design value for static pressure of duct
Inspection port	2- (5)	Inspection window open/close state	Smoke tester	Opening and closing shall be smooth with no air leaks.
Safety	Important point 4	Safety measures for inspection scaffold and passage away.	Visual, safety & health regulations	Shall be no corrosion, breakage or looseness.

3. Fan and electric motor

Item		Inspection item	Inspection method and tools	Judgement criteria
Fan	3- (1)	Casing outer surface wear-corrosion and deformation	Visual	Shall be no abnormalities to impair fan functions.
	3- (2)	Check for any wear, corrosion, deformation dust adhering on the casing inner surface & impeller and guide vane.	Visual, thickness gauge, scraper	Shall be no abnormalities to impair fan functions.
Belt	3- (3)	Check for any belt wear/damage, amount of droop, pulley wear, eccentricity, rpm (when there is insufficient intake exhaust performance)	Visual, touch, scale, deflection gauge, tachometer	Shall be no breakage, eccentricity, or looseness.(See Note 1) Shall be specified RPM.
Rotation direction	3- (4)	Check direction (when intake exhaust performance is inadequate)	Visual	Shall be specified rotation direction
Fan bearing	3- (5)	Abnormal bearing sounds, temperature, oil and grease oil quantity and state of impurities	Auditory, touch, surface temperature, visual	Shall be no abnormal sounds, difference versus ambient temperate shall be 40°C(104°F) or less at a surface temperature of 70°C(158°F).
Motor	3- (6)	Status of winding and case, winding and ground terminal for insulating resistor and surface temperature	Insulation resistor tester, surface temperature meter	Shall be specified value or more. (See Note 2 for state of change in surface temperature)
Safety cover	3- (7)	State of safety covers such as for belts.	Visual, touch	Shall be no wear deformation and no looseness in installation section.
Control panel	3- (8)	Display lamp (display cover) name plate broken/missing, looseness in terminals such as causing operating defects in meters, check for discoloration, dust accumulation status	Visual, tester, clamp-meter	Shall be no breakage or missing items and no operating defects. Shall be no accumulated dust adhering
Fan exhaust air flow	3- (9)	Measure the air flow distribution within duct on inlet or outlet port, and calculate the exhaust flow quantity (when intake exhaust performance is low)	Air flow gauge, Manometer	Shall be required air flow or greater to meetjudgment criteria for intake/exhaust performance.
Safety	Important point 2,3	Safety measures for machine and electrical inspections	Safety & health regulations	Shall have hazard prevention measures installed.

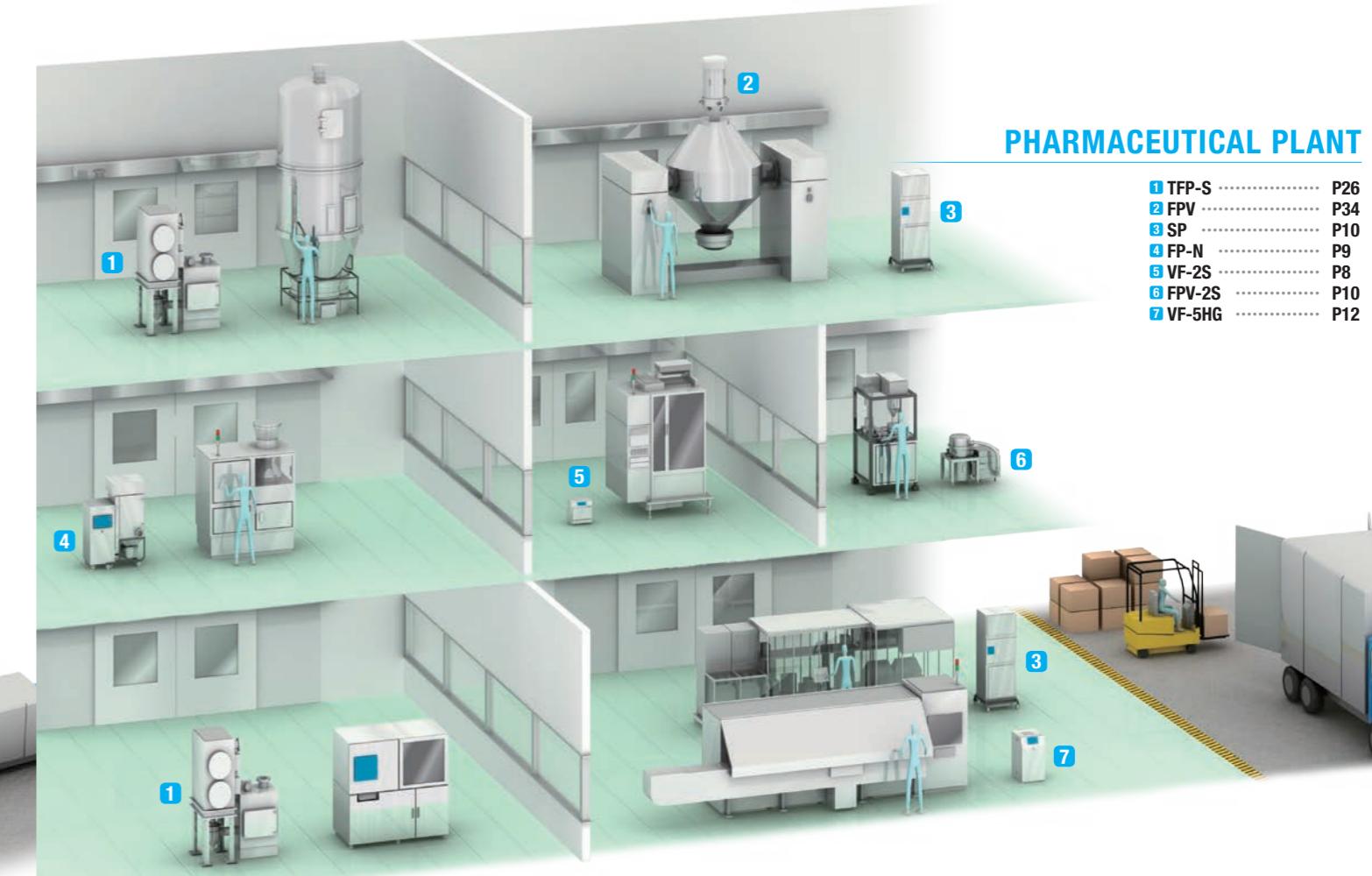
Dust removal device (Air cleaning device)

Item		Inspection item	Inspection method and tools	Judgement criteria
Dust collector	I-1-(1)	Outer surface wear, corrosion, breakage, accumulated dust status	Visual (inspection door or coupling), stethoscope to check for surface impacts, ultrasonic thickness gauge, manometer, air flow meter	There shall be no abnormalities (breakage, looseness, dust, etc.) that lower the performance of the dust collector equipment.
	I-1-(2)	Inspection door open/close state	Touch tasks	Shall open/close smoothly and seal securely.
	I-1-(4)	For the damper: check status of other bypass valves and flexible joints the same as 2-(3)	Visual, auditory	Shall operate smoothly and shall be no abnormalities (breakage, air leakage and dust accumulation, etc.) that lower performance
	I-2-(2)	For the belt and so on: Check status of lubrication and dust adhering to other chains the same as 3-(3)	Visual	Shall be no abnormalities from dust adhering & no lack of oil.
	I-3	Status of external and inner sections (inspection door or impact noises) Exhaust status and operation of exhaust equipment	Visual, auditory, listen for surface impact	Shall be no dust leakage or abnormalities due to dust accumulation. Shall be no drop in smooth discharge function, operating defects, abnormal sounds, and abnormal vibration.
	I-5	Investigate pressure and check for abnormalities in meters Check for drain within air receiver	Visual	Pressure shall be in range of design values, and drainage shall be minimal.
	I-6	Measure the concentration in the upper and lower flow sections of main unit and find the dust removal efficiency	Method specified in JIS-Z-8808, etc.	Design values shall be within the specified range.
Cyclone type	I-7	Check for defects in operation of pressure dispersion vent, fire damper, interlock release valve, etc.	Touch tasks, visual	Shall operation smoothly and satisfactorily.
	II-1	Check status of air inflow at dust exhaust unit of intake type cyclone	Visual, smoke tester	Shall be no intake of smoke or dust.
Filtering method	II-2	Check dust accumulation on neck section and breakage/wear status	Listen for impacts, ultrasonic thickness gauge	Shall be design thickness or higher with no abnormal deposits/accumulations.
	IV-1-(1)	Measure the before and after pressure differential and check for any clogs, breakage, deterioration, and dampness	Visual, touch, manometer (pressure gauge)	Shall be no abnormalities that lower filter performance, pressure differential shal be within design value range.
	IV-1-(2)	Check installation status and breakage in clamping parts of omissions/uneven clamping	Visual, touch	Shall be securely tightened and in a suitable state with nothing loose or missing or drooping.
	IV-2-(1)	Check status of reverse flow fan [Same as 3-(9) for wear, corrosion, deformation, and abnormal vibration during operation & abnormal sounds	Visual, auditory	Shall operate smoothly and shall be no abnormalities breakage, abnormal vibrations or sounds that lower dust removal function.
	IV-2-(2)	Check operation spray sounds of pilot and diaphragm valve & for water oil during compressed air, air leaks during non-spray	Auditory, check paper leakage	Shall have normal spray sounds and no air leakage sounds, and no paper leakage in air from spray nozzle.
Safety		Important point 4	Safety measures for inspection scaffold and passage away.	Shall be no corrosion, breakage or looseness.



Amano environmental products

Our dust collectors, vacuum cleaners, mist collectors, pneumatic conveying systems are used in all sections of production plants. We design and provide ideal systems that meet customer needs and applications.



We also have a number of overseas delivery records. Feel free to consult us whenever you like.

■ Overseas local subsidiaries
http://www.amano.co.jp/corp/associated_kaigai.html

To Ensure Safe Operation

■ Standard Dust Collectors (VNA,PiF, VF-5N,IS-15,Mi,IP, IX,IB,VF-2S,SP,FP-N,FPV-2S and Large-scale Dust Collectors)

- To ensure proper usage of this product please read the instruction manual carefully before using.
- Standard model dust collectors are for collecting dust/powder that is not likely to cause fires or dust explosions.
- Do not suction the following materials:
 - Explosive materialsmagnesium, aluminum, titanium, zinc, epoxies, flour, etc.
 - Flammable materials....gasoline, thinner, benzene, kerosene, paint, etc.
 - Sparkssparks, or dust that contains sparks
 - Fire remainscigarette stubs, ashes, etc.
 - Others.....water, oil, liquid chemicals, toxic dust such as asbestos, etc.
- In case of suctioning dust including sparks produced by polishing or cutting work, Pre-dust box is required. Consult with Amano branch office to select the appropriate model.
- This machine is not an explosion-proof type. Do not install the machine at hazardous area specified by laws.
- Do not operate the machine in areas exposed to mist, fumes or gases that are explosive or corrosive, and in or near place where explosive flammable dust scatters.
- Please comply with any legal regulations that are established for installation.
- Keep the operating ambient temperature between 0 and 40°C(32 and 104°F).
- Be sure to ground the machine to protect against electric shock.
- Be sure to use pipes with the appropriate diameter and make them as short as possible according to dust collection conditions so that dust will not accumulate in them.
- When using an antistatic filter, use a steel bucket.
- Dispose of collected dust daily. Do not allow dust to accumulate in the bucket or hopper.
- Please perform daily and periodical maintenance work in accordance with instructions described in the operation manual. Please comply with regulations stipulated by laws and/or ordinances that are applicable to product maintenance.
- This device is intended for usage and transactions within Japan and the manufacturer bears no responsibility whatsoever for usage overseas. If intending to use this device outside Japan then please consult our company beforehand.
- As for collecting explosive dust, consult with your Amano representative, since dust explosion pressure diffusion type dust collector are available.
- In case of installing machine in a place with high dust concentration, please take measures against dust of the electric part.

■ VNA,FCN

- If piping must be connected to the exhaust port then order an item with sealed structure specifications. When connecting piping to a standard specification (non-countermeasure part) exhaust port, then air leaks might occur from the upper section of the unit.

■ Laser marking dust collector (PiH)

- This device collects dust from fumes and deodorizes odors from those fumes.
- Among other item, please comply with all caution items for standard dust collectors.

■ Dust explosion pressure diffusion type dust collector(VN-SD, VNA-SDN/DN, PiF-D/SD, PiE-SDN/DN, IX-D, IP-D)

- To ensure proper usage of this product please read the instruction manual carefully before using.
- Dust explosion pressure diffusion type dust collector collects flammable dust (with dust explosiveness). Flammable substances, flammable gases and mixtures of flammable dust and gases can not be collected.
- Do not suction the following materials:
 - Highly combustible potentially explosive materials..... magnesium, etc.
 - Flammable materials.... gasoline, thinner, benzene, kerosene, paint, etc.

- Sparkssparks, or dust that contains sparks
- Fire sourcessuch as cigarette stubs, ashes, etc.
- Others.....water, oil, liquid chemicals, toxic dust such as asbestos, etc.
- To change the type of inflammable dust for collection, have an (fee-charging) evaluation made for the extent of dust explosiveness, and only device on dust confirmed to be collectable by this device.
- We are not responsible for any determination of dust-collecting capability in case of a dust explosion risk remains unclear or without evaluation.
- Please consult with Amano branch office and sales office about (fee-charging) evaluation of dust explosion risk.
- Dust explosion pressure diffusion type dust collectors are designed to maintain conditions under which it is difficult for explosions to occur; however, they cannot completely prevent explosions.
- Please evaluate the explosion characteristics of the target dust from the dust explosion hazard test etc., and select an acceptable model for the result.
- Dust explosion pressure diffusion type dust collectors are basically outdoor equipment designed to lower the risk during explosion force dispersion. In case the dust collectors are installed indoors, the dust explosion pressure diffusion increase the risks of damage.
- To set it up indoors, be sure take a protective measure against dust explosion (including protection wall installation, elimination of elements which hamper the diffusion of explosion pressure, etc.). Along with the measure, change it to a fire extinguishing specification to alleviate the hazard induced by explosion pressure diffusion.
- Install dust explosion pressure diffusion type dust collectors in a place where people will not be working above it. Also, do not place any factory equipment on or above the machine.
- This unit is not an anti-explosion design. It cannot be installed in locations defined by law as hazardous.
- Do not operate the machine in areas exposed to mist, fumes or gases that are explosive or corrosive, and in or near place where explosive flammable dust scatters.
- Please comply with any legal regulations that are established for installation.
- Keep the operating ambient temperature between 0 and 40°C(32 and 104°F). (system is not applicable)
- Be sure to ground the machine to protect against electrical shock and to remove static electrical charges.
- Be sure to use pipes with the appropriate diameter and make them as short as possible according to the dust collection conditions so that dust will not accumulate in them.
- Dispose of collected dust daily. Do not allow dust to accumulate in the bucket or hopper.
- To prevent static buildup, do not use dust bag.
- Please perform daily and periodical maintenance work in accordance with instructions described in the operation manual. Please comply with regulations stipulated by laws and/or ordinances that are applicable to product maintenance.
- In the event a dust explosion occurs please request an inspection by our company.
- This device is intended for usage and transactions within Japan and the manufacturer bears no responsibility whatsoever for usage overseas. If intending to use this device outside Japan then please consult with our company beforehand.
- In case of installing machine in a place with high dust concentration, please take measures against dust of the electric part.

■ Fume Collector (FD-10, HF, FCN)

- To ensure proper usage of this product please read the instruction manual carefully before using.
- The Fume Collector FCN series is designed to collect fumes from welding or cutting as well as sparks emitted during those tasks.
- Do not suction the following materials (they could cause explosions):
 - Explosive materials... magnesium, aluminum, titanium, zinc, epoxies, flour, etc.
 - Flammable materials....gasoline, thinner, benzene, kerosene, paint, etc.
 - Adhesive materials.....water-soluble mist, oil mist, etc.
 - Otherwater, oil, liquid chemicals, cigarette stubs, ashes, as well as toxic dust from asbestos, etc.

- This unit is not an anti-explosion design. It cannot be installed in locations defined by law as hazardous.
- Do not operate the machine in areas exposed to mist, fumes or gases that are explosive or corrosive, and in or near place where explosive flammable dust scatters.
- Please comply with any legal regulations that are established for this device
- Keep the operating ambient temperature between 0 and 40°C(32 and 104°F).
- Be sure to ground the machine to protect against electric shock.
- Be sure to use pipes with the appropriate diameter and make them as short as possible according to dust collection conditions so that dust will not accumulate in them.
- Dispose of collected dust daily. Do not allow dust to accumulate in the bucket or hopper.
- Please perform daily and periodical maintenance work in accordance with instructions described in the operation manual. Please comply with regulations stipulated by laws and/or ordinances that are applicable to product maintenance.
- This device is intended for usage and transactions within Japan and the manufacturer bears no responsibility whatsoever for usage overseas. If intending to use this device outside Japan then please consult our company beforehand.
- As for collecting explosive dust, consult with your Amano representative, since dust collectors equipped with anti-explosion mechanisms are available.

■ DB

- To ensure proper usage of this product please read the instruction manual carefully before using.
- The DB series is a preprocessor device for preventing sparks from entering within the dust collector.
- Do not suction the following materials:
 - Explosive materialsaluminum, magnesium, titanium, zinc, epoxies, etc.
 - Flammable materials....gasoline, thinner, benzene, kerosene, paint, etc.
 - Abrasive dust.....such as dust emitted from high-speed cutters and grinders, etc.
 - Fire sourcessuch as cigarette stubs, ashes, etc.
 - Otherwater, oil, liquid chemicals, paper or other combustible waste, as well as toxic dust from
- Do not operate the machine in areas exposed to mist, fumes or gases that are explosive or corrosive, and in or near place where explosive flammable dust scatters.
- Dispose of collected dust daily. Do not allow dust to accumulate in the bucket.
- This device is intended for usage and transactions within Japan and the manufacturer bears no responsibility whatsoever for usage overseas. If intending to use this device outside Japan then please consult our company beforehand.

■ SR

- To ensure proper usage of this product please read the instruction manual carefully before using.
- The SR Series dust collectors are preprocessor devices designed to prevent dust collector filter blockages and allow a long-term filter replacement cycle.
- If the aim is spark prevention then use the bucket type.
- Do not suction up the following materials:
 - Explosive materialsaluminum, magnesium, titanium, zinc, epoxies, etc.
 - Flammable materials....gasoline, thinner, benzene, kerosene, paint, etc.
 - Fire sourcessuch as cigarette stubs, ashes, etc.
 - Others.....water, oil, liquid chemicals, toxic dust such as asbestos, etc.
- Do not operate the machine in areas exposed to mist, fumes or gases that are explosive or corrosive, and in or near place where explosive flammable dust scatters.
- Dispose of collected dust daily. Do not allow dust to accumulate in the bucket or dust bag.
- This device is intended for usage and transactions within Japan and the manufacturer bears no responsibility whatsoever for usage overseas. If intending to use this device outside Japan then please consult our company beforehand.

■ Industrial vacuum cleaners•concentrated cleaning systems (V-Σ,IPR/IXR,central cleaning)

- To ensure proper usage of this product please read the instruction manual carefully before using.
- This device is for collecting ordinary dust/powder that is not likely to cause fires or dust explosions.
- Do not suction the following materials:
 - Explosive materials... magnesium, aluminum, titanium, zinc, epoxies, flour, etc.
 - Flammable materials....gasoline, thinner, benzene, kerosene, paint, etc.
 - Sparkssparks, or dust that contains sparks
 - Fire sourcessuch as cigarette stubs, ashes, etc.
 - Other fluidssuch as water, oil, liquid chemicals, etc.
- If there is a danger of suctioning sparks when collecting flammable dust from polishing work and so forth, consult with your branch or sales office to select the appropriate model.
- This unit is not an anti-explosion design. It cannot be installed in locations defined by law as hazardous.
- Do not operate the machine in areas exposed to mist, fumes or gases that are explosive or corrosive, and in or near place where explosive flammable dust scatters.
- Please comply with any legal regulations that are established for this device.
- Keep the operating ambient temperature between 0 and 40°C(32 and 104°F).
- Be sure to ground the machine to protect against electric shock.
- Be sure to use pipes with the appropriate diameter and make them as short as possible according to dust collection conditions so that dust will not accumulate in them.
- Dispose of collected dust daily. Do not allow dust to accumulate in the bucket or hopper.
- Please perform daily and periodical maintenance work in accordance with instructions described in the operation manual. Please comply with regulations stipulated by laws and/or ordinances that are applicable to product maintenance.
- This device is intended for usage and transactions within Japan and the manufacturer bears no responsibility whatsoever for usage overseas. If intending to use this device outside Japan then please consult our company beforehand.
- In case of installing machine in a place with high dust concentration, please take measures against dust of the electric part.

■ Dust explosion pressure diffusion type industrial vacuum cleaner (V-SDR)

- To ensure proper usage of this product please read the instruction manual carefully before using.
- The collecting dust of the dust-explosion pressure diffusion type industrial vacuum cleaner shall be the combustible dust of which we are ensured of dust-collecting capability by the evaluation of its dust explosion hazardous characteristics.
- Do not suction the following materials:
 - Highly combustible potentially explosive materials..... magnesium, etc.
 - Flammable materials.... gasoline, thinner, benzene, kerosene, paint, etc.
 - Sparkssparks, or dust that contains sparks
 - Fire sourcessuch as cigarette stubs, ashes, etc.
 - Other fluidssuch as water, oil, liquid chemicals, etc.
- To change the type of inflammable dust for collection have an (fee-charging) evaluation made for the extent of dust explosiveness, and only use on dust confirmed to be collectable by this device.
- We are not responsible for any determination of dust-collecting capability in case of a dust explosion risk remains unclear or without evaluation.
- Please consult with Amano branch office and sales office about (fee-charging) evaluation of dust explosion risk.
- Dust explosion pressure diffusion type dust collectors are designed to maintain conditions under which it is difficult for explosions to occur; however, they cannot completely prevent explosions.

- Install dust explosion pressure diffusion type dust collectors in a place where people will not be working above it. Also, do not place any factory equipment on or above the machine.
- This unit is not an anti-explosion design. It cannot be installed in locations defined by law as hazardous.
- Do not operate the machine in areas exposed to mist, fumes or gases that are explosive or corrosive, and in or near place where explosive flammable dust scatters.
- Please comply with any legal regulations that are established for this device
- Keep the operating ambient temperature between 0 and 40°C(32 and 104°F).
- Be sure to ground the machine to protect against electric shock and to prevent static electrical charges.
- Dispose of collected dust daily. Do not allow dust to accumulate in the bucket.
- To prevent static buildup, do not use dust bag.
- Please perform daily and periodical maintenance work in accordance with instructions described in the operation manual. Please comply with regulations stipulated by laws and/or ordinances that are applicable to product maintenance.
- In the event a dust explosion occurs please request an inspection by our company.
- This device is intended for usage and transactions within Japan and the manufacturer bears no responsibility whatsoever for usage overseas. If intending to use this device outside Japan then please consult our company beforehand.

■ VF-2LD

- To ensure proper usage of this product please read the instruction manual carefully before using.
- The collecting dust shall be limited to general particulates and combustible organic particulates, which are ensured the dust-collecting capability by dust explosion risk assessment as well as with dust explosibility numerically expressed as follows.
Kstvalue 300×10^3 kPam/s or less
Pmax: 11×10^2 kPa or less
- Do not suction the following materials:
 - Potentially explosive combustible dust.....magnesium, aluminum, etc.
 - Flammable materials....gasoline, thinner, benzene, kerosene, paint, etc.
 - Sparkssparks, or dust that contains sparks
 - Others.....toxic dust such as asbestos and fluids such as liquid chemicals
- To change the inflammable organic dust targeted for collection, make an evaluation of the extent of that dust's explosiveness, and only use on dust confirmed to be collectable by this device. We are not responsible for any determination of dust-collecting capability in case of a dust explosion risk remains unclear or without evaluation.
- Please consult with Amano branch office and sales office about (fee-charging) evaluation of dust explosion risk.
- This device has a structure designed to prevent explosions however it cannot completely prevent explosions..
- Remove all combustible material within 4.7 meters above the explosion discharge port and utilize non-combustible material.
- This unit is not an anti-explosion design. It cannot be installed in locations defined by law as hazardous.
- Do not operate the machine in areas exposed to mist, fumes or gases that are explosive or corrosive, and in or near place where explosive flammable dust scatters.
- Please comply with any legal regulations that are established for this device
- Keep the operating ambient temperature between 0 and 40°C(32 and 104°F).
- Always connect to ground regardless of whether operating, stopped, or performing maintenance.
- Use electrically conductive material in piping such as hoses and ducts, and satisfy the condition of a resistance value of $10\Omega/cm$ or less.
- Always connect to ground for tasks such as shakedown of dust adhering to filters and dust exhaust (discharge), and have the worker perform the tasks after removing static charges accumulated on the workers themselves.

- Do not extract buckets right after shakedown of filters where dust is adhering.
- Please perform daily and periodical maintenance work in accordance with instructions described in the operation manual. Please comply with regulations stipulated by laws and/or ordinances that are applicable to product maintenance.
- This device is intended for usage and transactions within Japan and the manufacturer bears no responsibility whatsoever for usage overseas.
- Discharge dust collected in the bucket every day, and do not allow dust to accumulate within the bucket.
- To prevent static buildup, do not use dust packs.
- Devices where explosions occurred cannot be reused.
- In case of installing machine in a place with high dust concentration, please take measures against dust of the electric part.

■ Oil and Water-Soluble Mist Collectors (EM-eII, EM-eH, EM-SC, EM-SCII Lt,MZ, MJ, MS)

- To ensure proper usage of this product please read the instruction manual carefully before using.
- This machine is designed to handle mist of water-soluble and oil based cutting fluids.
- During intake (suction) of oily mist in the MZ-MJ series, attach and use the after-filter option.
- Do not suction the following materials:

- Flammable materials.....gasoline, thinner, benzene, kerosene, paint, etc.
 - Dust or fumes
 - Fire sourcessuch as cigarette stubs, ashes, etc.
 - Other fluidssuch as water, water vapor, chemicals
 - Oil or mist with a flash point lower than 80°C(176°F)
- Keep the operating ambient temperature between 0 and 40°C(32 and 104°F).
- Use the machine at below maximum inlet concentration.
 - This device cannot remove odors or gas component.
 - Use the EM-eH for die casting machines.
 - Do not use in magnesium die-casting machines.
 - Do not utilize parting agents (mold lubricators) containing diluted kerosene.

- This unit is not an anti-explosion design. It cannot be installed in locations defined by law as hazardous.
- Do not operate the machine in areas exposed to mist, fumes or gases that are explosive or corrosive, and in or near place where explosive flammable dust scatters.
- Be sure to ground the machine to protect against electric shock.
- Be sure to use pipes with the appropriate diameter and make them as short as possible according to dust collection conditions so that dust will not accumulate in them.
- If you want to use the machine to suction exhaust gases from vacuum pumps, combustion engines, etc., please inform our branch or sales office of the suction conditions and find out whether or not you can use this machine.
- Perform maintenance of electrodes according to the following items.

- Inspect for dust contamination adhering to parts at least once a week.
- If dust or contamination has deposited up to 2mm(0.07inch) at time of inspection then wash it away.
- Periodically wash at least once every 3 months.
- When making inspections and replacing filters and components always cut the power and check that the fan rotation has completely stopped before starting the task.
- Do not use oily detergent adhering to the collecting unit or inflammable substances for cleaning the unit. Operating the unit with fluid containing inflammable substances may cause it to ignite and lead to explosions or fires.

【Banned inflammable substances】

- Liquids such as gasoline, kerosene, thinner, tolulene
- Inflammable detergents (Detergents marketed under commercial names such as parts cleaners and brake cleaners)

- Use soluble detergent for oil/grease removal when cleaning the main unit and adhered oil of the collecting unit.
Always comply with the instructions listed on the detergent.
- In case of installing machine in a place with high dust concentration, please take measures against dust of the electric part.

■ Water-Soluble Mist Collectors (MC-45)

- To ensure proper usage of this product please read the instruction manual carefully before using.
- This machine is designed to handle water-soluble mist.
- Do not suction the following materials:
 - Flammable materials.....gasoline, thinner, benzene, kerosene, paint, etc.
 - Dust or fumes
 - Fire sourcessuch as cigarette stubs, ashes, etc.
 - Other fluidssuch as water, water vapor, chemicals
 - Oily mist generated from oily cutting fluid

To suction oil mist, use another model designed to collect oil mist.

- Keep the operating ambient temperature between 0 and 40°C(32 and 104°F).
- Use machine at below maximum inlet dust concentration.
- This unit is not an anti-explosion design. It cannot be installed in locations defined by law as hazardous.
- Do not operate the machine in areas exposed to mist, fumes or gases that are explosive or corrosive, and in or near place where explosive flammable dust scatters.
- Always connect to ground to prevent electrical shocks.
- Be sure to use pipes with the appropriate diameter and make them as short as possible according to dust collection conditions so that dust will not accumulate in them.
- This device cannot remove odors or gas component.
- If piping must be connected to the exhaust (discharge) port then order an item with sealed structure specifications.

When connecting piping to a standard specification (non-countermeasure part) exhaust port, then air leaks might occur from the upper section of the unit.

■ SS-N

- To ensure proper usage of this product please read the instruction manual carefully before using.
 - Do not allow intake/suction of the following materials:
 - Explosive materials... magnesium, aluminum, titanium, zinc, epoxies, flour, etc.
 - Flammable materials....gasoline, thinner, benzene, kerosene, paint, etc.
 - Fire sourcessuch as cigarette stubs, ashes, etc.
 - Adhesive materials.....Water-Soluble Mist, oil mist, etc.
 - Other fluidssuch as water, oil, liquid chemicals
 - Absolutely never operate this device if the internal water level is not at the correct level.
 - Please consult Amano branch office in the case of freezing in the winter season, cold areas, and outdoor installations.
 - Remove the trapped dust and discharge it every day as sludge.
- Discharge the sludge according to related legal regulations as specified by each company.
- This unit is not an anti-explosion design. It cannot be installed in locations defined by law as hazardous.
 - Do not operate the machine in areas exposed to mist, fumes or gases that are explosive or corrosive, and in or near place where explosive flammable dust scatters.
 - Please comply with any legal regulations that are established for this device.
 - Be sure to use pipes with no droop and an appropriate diameter and keep them as short as possible according to dust collection conditions so that dust will not accumulate in them.
 - Always connect to ground to remove static charges and to prevent electrical shock.
 - Keep the operating ambient temperature between 0 and 40°C(32 and 104°F).

- Please perform daily and periodical maintenance work in accordance with instructions described in the operation manual. Please comply with regulations stipulated by laws and/or ordinances that are applicable to product maintenance.
- This device is intended for usage and transactions within Japan and the manufacturer bears no responsibility whatsoever for usage overseas.

If intending to use this device outside Japan then please consult our company beforehand.

- In case of installing machine in a place with high dust concentration, please take measures against dust of the electric part.

■ Laser marking dust collectors (VF-5HG,VF-5HN,VF-5H)

- To ensure proper usage of this product please read the instruction manual carefully before using.
- This machine is for collecting fumes generated by laser markers and other items and deodorizes those fumes.
- Do not suction the following materials:
 - Explosive materials... magnesium, aluminum, titanium, zinc, epoxies, flour, etc.
 - Flammable materials....gasoline, thinner, benzene, kerosene, paint, etc.
 - Corrosive substance.....chlorine gas, chlorine-sulfuric acid gas, hydrogen fluoride, etc.
 - Sparkssparks, or dust that contains sparks
 - Fire sourcessuch as cigarette stubs, ashes, etc.
 - OtherToxic dust such as asbestos and fluid such as water, oil, liquid chemicals, etc.
- Before selecting a particular model, please consult with us beforehand if the machine must intake (suction) dust containing sparks.
- This unit is not an anti-explosion design. It cannot be installed in locations defined by law as hazardous.
- Do not operate the machine in areas exposed to mist, fumes or gases that are explosive or corrosive, and in or near place where explosive flammable dust scatters.
- Please comply with any legal regulations that are established for this device.
- Keep the operating ambient temperature between 5 and 40°C(41 and 104°F).
- Be sure to ground the machine to protect against electric shock.
- Be sure to use pipes with no droop and with an appropriate diameter and make them as short as possible according to dust collection conditions so that dust will not accumulate in them.
- Please perform daily and periodical maintenance work in accordance with instructions described in the operation manual. Please comply with regulations stipulated by laws and/or ordinances that are applicable to product maintenance.
- This device is intended for usage and transactions within Japan and the manufacturer bears no responsibility whatsoever for usage overseas. If intending to use this device outside Japan then please consult our company beforehand.
- In case of installing machine in a place with high dust concentration, please take measures against dust of the electric part.

■ TFP,TFP-S,HGD, Pneumatic Conveying Systems

- Be sure to read the instruction manual thoroughly before getting started, and use the machine correctly.